

Prepared For: Midwest Generation, LLC



Hazardous Materials
Assessment Report –
Crawford Generating Station

October 2012

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Hazardous Materials Assessment Report -

Crawford Generating Station 3501 South Pulaski Road Chicago, Illinois

October 2012

Project Number 0168420

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A ERM Asbestos Survey Report, July 2012



1.0 INTRODUCTION

Environmental Resources Management, Inc. (ERM) prepared this Pre-Demolition Hazardous Building Materials Report for Midwest Generation, LLC (Midwest Gen) regarding the Crawford Generating Station located at 3501 South Pulaski Road, Chicago, Illinois (the "Site"-See Figure 1).

Midwest Gen may decommission the generating station at the Site and in preparation for the decommissioning and potential sale of the Site, Midwest Gen requested that ERM conduct a more extensive hazardous building material assessment (HBMA) to address 1) pre-demolition abatement/decontamination needs, 2) demolition debris management and disposal needs, and 3) construction worker exposure issues.

1.1 SITE BACKGROUND

The facility is a coal-fired electric power generating station occupying approximately 70 acres. The main structure on the property was originally built in the early 1920s with the first unit being operational in1924. There are currently two operating units: Units 7 and 8. Six units previously operated at the site and have been refired. Units 1 through 4 were dismantled in the 1960s and were removed. Units 5 and 6 were retired in the early 1970s and portions remain in the east half of the main generating building. There were twelve peakers at the site, fueled primarily by fuel oil and natural gas. The peakers were retired, dismantled and removed from the site in 2006. Electrical power is transmitted from the site to the area grid through overhead transmission power lines.

The main generating building is located near the western edge of the property. Low sulfur coal from Wyoming is delivered to the site from the Midwest Generation Will County Station via barge along the Chicago Sanitary and Ship Canal (Canal) and is transferred to a coal pile via a conveyor system. Coal is transferred to either the coal pile (capacity of 1.5 million tons) on the northeast side of the property or to the crusher house and then into the station. The coal pile has been purposefully reduced in size by up to 50 percent in recent years through a reduction in inventory from 60 days to 30 days. Storm water runoff from the coal pile is contained in the coal pile settling pond (also identified as Basin 3), located west of the coal pile and northeast of the main generating building. A 750,000-gallon fuel oil storage tank, previously used for the peakers, was dismantled and removed from the site in 2006. The tank had not been in active use for some time since the peakers more recently were primarily fueled by natural gas. There are several other aboveground fuel and material storage tanks with secondary containment located within the station property. The

station also includes a single permitted approximately 4,000- gallon diesel fuel UST and three oil/water separators.

Site runoff is collected and directed to a number of basins within the station property. Many of the basins, or "pits", have been recently lined with asphalt while at least one (Basin #3) remains unlined. Sanitary wastewater generated onsite is discharged to the MWRDGC for treatment. A National Pollutant Discharge Elimination System (NPDES) permit governs the process wastewater treatment system and discharges of condenser cooling water, house service water, demineralizer regenerant wastes, boiler blowdown and drain water, intake screen backwash, and storm water runoff from the various pits.

Cooling water is drawn from the Canal near the southwest property boundary and returned to the Canal just west of the intake channel. The station uses a once-through cooling water system. It should be noted that a portion of the steel ribbed seawall east of the intake canal and near the obsolete ComEd 66 and 38 KV transmission buildings has recently partially collapsed. Repair options for this wall are currently being evaluated. Fly ash is collected in silos and managed under contract by Lafarge Company for beneficial reuse and disposal. Bottom ash is collected in hydro-bins located north of the main generating building and is also sold for beneficial reuse or sent for off-site disposal.

1.2 FACILITY STRUCTURES AND FEATURES

The Site considered for sale is improved with the following six main buildings:

- Boiler Room -10-story building with a basement used for boiler operations, to include burning of coal to heat the boilers (this structure is immediately adjoined to the south by the turbine room);
- Turbine Room –one-story, approximately 40 feet tall building that adjoins the Boiler Room to the south with a mezzanine and basement used for turbine operations;
- Switch House –two-story building with a partial basement that
 adjoins the Turbine Room used for office space and historically as a
 building that housed electrical switching hardware used in
 management of the generated electricity and/or operation of the
 plant;

- Administrative Building –two-story building located immediately adjacent to the south of the Turbine Room and north of the Switch House with a basement used for office space and administrative operations.
- Waste Water Treatment Plant -two-story building with a large water equalization basin and treatment aboveground storage tanks (ASTs) used to treat and monitor water used at the Site.

Several other minor buildings or units also occupy the Site: Fly Ash Silo Unit, Barge Unloading Building, Dock Junction House, Drive House, Coal Crusher House, Coal Plant Office, Coal Handling-related Buildings (2), Locomotive House and other minor storage buildings and ASTs.

Areas between and around the buildings are concrete, asphalt paved, or gravel, and are used for parking, access to other Site buildings/areas or as vacant areas. The on-site areas of water consist of three ponds, consisting of Pond #1, Pond #3 and Pond #4, where Pond #4 is the largest. Two water inlet projects into the Site from the south and historically allowed CSSC water access into the Site for coal barge unloading) although current barge unloading is handled from barges tied up on the northern side of the CSSC. A large coal stockpile is present in the northeast corner of the Site.

2.0 FACILITY CHARACTERIZATION OBJECTIVES AND SCOPE

2.1 OBJECTIVE

The objective of the hazardous building materials assessment was to evaluate hazardous materials and/or universal wastes present or possibly present at the facility, in order to:

- Determine which materials/equipment require decontamination, removal or abatement prior to demolition;
- Determine demolition debris management, segregation, and disposal needs;
- Assess appropriate construction worker health and safety requirements/exposure issues; and
- Evaluate whether additional assessment is necessary to address the above objectives.

Building materials that may need to be abated or removed prior to demolition include asbestos, universal waste (i.e., fluorescent lamps and ballasts, mercury-containing equipment [i.e., thermostats and switches], and emergency lighting/batteries, oils and lubricants, and refrigerants, and metal vapor lights) and select building materials. Also, the presence of regulated materials in building materials will trigger certain construction worker exposure management steps depending on concentrations.

2.2 SCOPE

The scope of the pre-demolition building materials characterization included the following:

- Evaluation of building materials, equipment, and debris that may contain universal waste, hazardous waste, or other constituents regulated with respect to demolition and material disposal; and
- Sampling of potentially asbestos containing material (ACM), such as process-related equipment and building materials.

3.0 BUILDING MATERIAL ASSESSMENT AND SAMPLING

3.1 VISUAL ASSESSMENT METHODS

During June 2012, ERM inspected the Site to visually evaluate:

- Materials that may require sampling and laboratory analysis in order to determine proper disposal;
- Materials that may require segregation during demolition, such as for recycling/disposal or hazardous/nonhazardous disposal; and
- Whether regulated materials are potentially present or suspected and whether they would require special handling and/or disposal.

Several Site buildings (e.g., pump house west of Switch House #1) were not accessible due to the lack of matching keys available at the time of the Site visit. In addition, portions of some buildings (e.g., Number 18 Boiler House) were not accessible due to long terms of inactivity and expired grating inspections.

3.2 SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

The building material characterization consisted of the sampling and analysis of suspected ACM. The ACM sampling methods, locations and analytical results are described in a separate report included as Appendix A.

4.0 CONCLUSIONS

Because the facility is slated for decommissioning, sale and possible demolition, ERM evaluated the results against:

- IEPA's July 2011 proposed clean construction and demolition debris (CCDD) disposal criteria regarding off-site disposal (35 IAC Subtitle J, Chapter I, Part 1100),
- USEPA and or IEPA TACO Tier 1 ROs regarding on-site disposal;
 and
- IEPA TACO Tier 1 ROs and applicable OSHA regulations regarding potential construction worker exposure and potential personnel medical and exposure monitoring.

In summary, ERM survey identified that certain building materials contain asbestos which will affect the proposed demolition activities and warrant preparation of plans to address material management, disposal, and health and safety monitoring of demolition workers

The following section summarizes those findings.

4.1 UNIVERSAL WASTE AND OTHER POTENTIALLY REGULATED MATERIALS

Based on ERM's observations and the age and condition of the facility, the following regulated materials could be present at the facility as universal waste:

- PCB-containing fluorescent light ballasts and electrical equipment such as transformers, switchgear and motor control centers;
- Mercury-containing lamps and thermostats, as well as in switches;
- Heavy metals contained in batteries in emergency lighting and backup power sources, and in cathode ray tubes and electronic devices.

In addition, there were other materials found which will have to be managed and handled separately from the bulk demolition debris:

• Refrigerant in air conditioning units

The distribution of the above materials as observed within accessible Site structures are presented in Table 1 and a map of Site structures is found in Figure 2. Overall, the material found is typical of buildings of this age and requires the common action of removal prior to demolition of the facility. Table 1 illustrates that the most prevalent universal waste located onsite is the facility lighting.

4.2 ASBESTOS

The asbestos found in the facility as part of the asbestos survey performed by ERM in July 2012 should be abated prior to demolition by a licensed asbestos abatement contractor. ERM recommends random site visits during these abatement activities to observe compliance with applicable regulations.

5.0 REPORT LIMITATIONS

Results of this assessment are based upon the findings of the limited sampling of the select areas of the Property at a particular point in time and comparison to currently available proposed standards or guidelines. Professional judgments expressed herein are based on the current available facts within the limits of the existing data, scope of work, budget, and schedule. Conclusions and recommendations regarding the Property represent the professional opinions of the ERM personnel involved with the project, and ERM's report should not be considered a legal interpretation of existing environmental regulations.

This report has been prepared for the sole and exclusive benefit and use of Midwest Gen. Notwithstanding delivery of this report by ERM or Midwest Gen to any third party, any copy of this report provided to a third party is provided for informational purposes only without the right to rely. Reliance on ERM's report by any other person(s) or entity(ies) is strictly at their own risk, and ERM makes no warranties to person(s) or entity(ies), other than Midwest Gen who use the information provided in this report. If other person(s) or entity(ies) wish to rely upon this report (i.e., lenders, mortgagers, insurance companies, or other parties to a transaction). ERM will require that such parties agree in writing to ERM's contract terms.

The services provided by ERM during this project have been rendered in a manner consistent with the level of skill and care ordinarily exercised by member of the profession currently practicing under similar conditions. It is ERM's intent that the conclusions and recommendations stated herein are intended as guidance and not necessarily as a firm course of action, except where explicitly stated as such.

Opinions expressed herein are based on the facts currently available within the limits of the existing data, scope of work, budget, and schedule. Results of this assessment are based upon the visual site inspection of readily accessible areas of the subject property conducted by ERM personnel, and information from historical documents and interviews with knowledgeable persons regarding the site.



Hazardous Building Materials Assessment Midwest Generation Crawford Power Station Chicago, IL

Building	НВМ	Quantity	Notes
Locomotive House	Window AC	1	
	Sodium Vapor Lamps	9	
		3)	
Coal Plant Office	MV/MH	1	
	Fluorescent Bulbs	68	
	Fluorescent Fixtures	34	
	Refrigerator	1	12
	Microwave	1	66
		•	COST .
WWTP	MV/MH	32	
	AST	1//	Labeled 1791 Sodium Hypochlorite ~15k gal
	AST	$\sqrt{2}$	Labeled 1760 - Corrosive Liquid (Misc) ~15k gal
			(0.3)
Hydrobins Octagon (SE of HAZMAT bldg)	Sodium Vapor Lamps	6	
	MYAME	2	
		<u> </u>	
HAZMAT Bldg	Sodium Vapor Lamps	12	Unable to enter West side of building-locked
~ (P)	MV/MH		V S.V
	55 gal drums	N.V	Misc 55 gal drums
Oil Storage Building	MV/MH	8	
	55 gal drums	40	drums labeled oil
(O) ^V			
GSEP Bldg (#30)	Fluorescent Bulbs	12	
	Fluorescent Fixtures	6)
		<u> 391/2</u>	
South of GSEP Bldg (not labeled)	AST (1	1000 Gal Gasoline
		27//	
Oil Storage Bldg	MVMH	8	
	55 gal Drums	40	Drums labeled oil
	<u> </u>		
ASH Silo Bldg	Sodium Vapor Lamps	10	
	MV/MH	1	
	₩		
66KV Reactor Area	Reactor	1	labeled "Contains PCB's"
	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	·

Bldg. West of Boiler Room			
.,	MV/MH	2	
d Gas House #261		_	
a Guo 116466 #201	Sodium Vapor	4	
Crib House	Codidin Vapor		
	Sodium Vapor	3	
Coal Handling Tractor Main. Bldg	Codidin Vapor		
Odd Harraing Hactor Main. Diag	AST	1	Diesel Tank ~500 gal
Switch House	17.0.		Diode. Taline Goo ga.
	MV/MH	22	
	55 gal drum		unknown contents
	Switch gear motors	110	oil filled motors
Turbine Room	o money goal motors	5/ ///	en mod motore
	Fluorescent Fixtures	48	
	Fluorescent Bulbs	96	N2)
	MV/MH	10	
	Diesel Motor	1	contains oil
	AST	1	~500 gal appears MT
	Batt pack (exit)	2	1
Precipitators		\sim	
•	Airborne contaminants		Contaminants id'ed by Mid Gen as possible -
			Particulates, Crystalline silica, Lead, Arsenic, and
			Mercury D3
Boiler Room	112 31	73.0	
47	Fluorescent Bullos	788	
	Fluorescent Fixtures	338	
	MV/MH	58	
	Drinking Fountain	707	
	Commercial AC	2 /	
		`	T T T
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Crawford Station Aux Power Transformers L/Ice Team / Eqpt Hist/ Transformers														
TRANSFORMER NAME	KVA	VOLTAGE	XFMR FLUID	SAMPLE FREQ (days)	SERIAL NUMBER	GALLONS OF OIL	Correction Factor	NITROGEN OR BLADDER	MANUF.	PCB's/ Test Required (Shaded)	TYPE OF SAMPLE	SPR SWITCH	LOCATION	Year In- Service
Unit 7														
MPT 7Y	150,000	138 kV/ 12kV	OIL	180	GBM30951	13660	1.46	BLADDER	ABB	Non PCB	DGA, Dialectric, Water	YES	Outside, South Side	1993
MPT 7G	150,000	138 kV/ 12kV	OIL	180	GBM30952	13660	1.46	BLADDER	ABB	Non PCB	DGA, Dialectric, Water	YES	Outside, South Side	1993
UAT 571	9375/7500	12kV/ 4160	OIL	180	3083829	1525	13	N2	Allis Chalmers	15 ppm	DGA, Dialectric, Water	YES	Outside, North Side	1957
UAT 572	9375/7500	12kV/ 4160	OIL	180	3083834	1525	13	N2	Allis Chalmers	.97 ppm	DGA, Dialectric, Water	YES	Outside, North Side	1988
Tr. 573	16,000	12 kV/ 4Kv	OIL	180	1900741	2050	9:75	NONE	Moloney	1.4 ppm	DGA, Dialectric, Water	YES	Outside, North Side	1961
SAT 57R	20,000	138kV/ 4kV	OIL	180	M162439B	4940	4.05	NONE	General Electric	Non PCB	DGA, Dialectric, Water	YES	Outside, North Side	1993
480V SUB 471	1200	4kV/ 480V	SILICON	180	3051820	464	43	NONE	Allis Chalmers	260 ppm 3/10	DGA, Dialectric, Water, PCB	NO	Boiler Room, 41' level	1957
480V SUB 472	1200	4kV/ 480V	SILICON	(189)	3051819	462	43	NONE	Allis Chalmers	260 ppm 3/10	DGA, Dialectric, Water, PCB	NO	Boiler Room, 41' level	1957
Unit 8				3//		<		·/>	(2)/3					
MPT 8	385,000	138 kV/ 12kV	OIL5	180	1-0140-26782-1	17460	1.145	N2	Allis Chalmers	1.0 ppm	DGA, Dialectric, Water	YES	Outside in Trackway	1961
MPT8 Tap Changer	East	.57 ~	OIL	180	1-0140-26782-1		>	17		1.0 ppm	DGA, Dialectric, Water	YES	Outside in Trackway	1961
MPT8 Tap Changer	West		OIL	180	1 0140-26782-1	7//	5)/2			1.0 ppm	DGA, Dialectric, Water	YES	Outside in Trackway	1961
UAT 581	16,000	12kV/ 4160	OOIL	180	1900740	2050	9.75	NONE	Moloney	2.1 ppm	DGA, Dialectric, Water	YES	Outside, North Side	1962
SAT 58R	20,000	138kV/ 4kV	OIL	180	M162439A	4940	4.05	NONE	General Electric	Non PCB	DGA, Dialectric, Water	YES	Outside, North Side	1993
480V SUB 481	1500/ 1725	4kV/ 480V	SILICON	180	7617-60	540	37	NONE	OHE	3.3 ppm	DGA, Dialectric, Water, PCB	NO	Boiler Room, 41' level	1961
480V SUB 48R	1500/ 1725	4kV/ 480V	SILICON	180	7618-60	540	37	NONE	Œ	1.7 ppm	DGA, Dialectric, Water, PCB	NO	Boiler Room, 41' level	1960
U8 T-R (16 SETS)	< 50 kVA	480V/ 50kVDC	Mineral Oil/ Silicon	2 yrs	Various	< 200		NONE	Research Cotre	SEE BELOW	DGA, Dialectric, Water, PCB	NO	Precip Area	
					<		3.11							

			Crawf	ord Statio	n Aux Powe	r Transf	ormers	L/Ice Team	/ Eqpt Hist/ Transfor	mers				
TRANSFORMER NAME	KVA	VOLTAGE	XFMR FLUID	SAMPLE FREQ (days)	SERIAL NUMBER	GALLONS OF OIL	Correction Factor	NITROGEN OR BLADDER	MANUF.	PCB's/ Test Required (Shaded)	TYPE OF SAMPLE	SPR SWITCH	LOCATION	Year In- Service
Coal Handling														
422	1000	12 kV/ 480V	OIL	180	338297	555	36	NONE	Wagner	1.8 ppm	DGA, Dialectric, Water	NO	Coal Handling Yard	1941
432	1200	12 kV/ 480V	OIL	180	0 00511 5 1	450	44.4	NONE	Pennsylvania	1.2 ppm	DGA, Dialectric, Water	NO	Coal Handling Yard	1960
521	1500	12kV/ 4160	OIL	180	279027	300	66.7	NONE	Ferranti Packard	15.3 ppm	DGA, Dialectric, Water	NO	Coal Handling Yard	
Spare 521	1500	12kV/ 4160	OIL	180	PJJ-0860	264		NONE	SIEMENS	Non PCB	DGA, Dialectric, Water	NO	Coal Handling Yard	2004
2300 Volt						9/6	9)^			1				
9	3000	12 kV/ 2300V	OIL	180	559002362	705	3/1)/1	Sealed tank	Siemens (Cooper)	Non PCB	DGA, Dialectric, Water	NO	East, Inside Xfmr Bay Area	Dec '05
10	4000	12 kV/ 2300V		180	1667092	1184	16.9	Exp Tiank	Allis Chalmers	1.2 ppm	DGA, Dialectric, Water	NO	Inside, Near 12kv Swgr. Room Xfmr Bay Area	1939
Waste Water Tr	eatment		14/1	200-	<			74//	12	1				
483	1500	4kV/ 480V	OIL	180	M313605TCPA	1500	13.3	NONE	General Electric	Non PCB	DGA, Dialectric, Water	NO	South Side of WWT Bldg.	
482	1500	4kV/ 480V	OIL	180	M313606TCPA	1500	13.3	NONE	General Electric	Non PCB	DGA, Dialectric, Water	NO	South Side of WWT Bldg.	
Barge Unloade	r Substat	tion			9//	7	<u> </u>	9/1/2	^>	19/9				
403	500	4kV/ 480V	OIL	(89)	950005853	1513	5	N/A	Cooper Power Systems	Non PCB	DGA, Dialectric, Water	NO	Barge Unloader Substation (Turbine Floor)	2009
404	1000	4kV/ 480V		180	255236	Dry	N/A)	N/A		Non PCB	Dry	NO	Sennebogan Power feed	2009
120/208 System	n - Switch	nhouse #1	90		79/3		4	11/1/2			3	0		
221	500	12kV/ 208V	SILICON	180	3031876	247	81	NONE	Westinghouse	49 ppm 3/10	DGA, Dialectric, Water, PCB	NO	Inside, Near 12kv Swgr. Room Xfmr Bay Area	1943
231	500	12kV/ 208V	SILICON	180	3031875	247	81	NONE	Westinghouse	43 ppm 3/10	DGA, Dialectric, Water, PCB	NO	Inside, Near 12kv Swgr. Room Xfmr Bay Area	1943
Old 480 Volt				<	46		0,	77	3//3	3,				
11	750	12 kV/ 480V	OIL	180	7937981	340	58.8	NONE	GE	8.3 ppm 3/07	DGA, Dialectric, Water	NO	East, Inside Xfmr Bay Area	1947
12	2000	12 kV/ 480V	OIL	180	C 864697	635	≥ ∠31.5	NONE	GE	20 ppm	DGA, Dialectric, Water	NO	Inside, Near 12kv Swgr. Room Xfmr Bay Area	1994
T-R sets to receiv	ve PCB sa	mpling					3.57	>						
TRANSFORMER NAME	KVA	VOLTAGE	XFMR FLUID	SAMPLE FREQ (days)		GALLONS OF OIL	Correction Factor	NITROGEN OR BLADDER	MANUF.	PCB's/ Test Required (Shaded)	TYPE OF SAMPLE	SPR SWITCH	Status	Year In-
71A 71G 71H 72A 72F 72G 72H		50KV/400V	SILICON	2 yrs				NONE	Research Cotrell	YES	DGA, Dialectric, Water, PCB	NO		
-5 81A 81C 82A 82B 82C		50KV/400V	SILICON	2 yrs				NONE	Research Cotrell	YES	DGA, Dialectric, Water, PCB	NO		

Crawford Station Kentron Room Oil Tank Samples

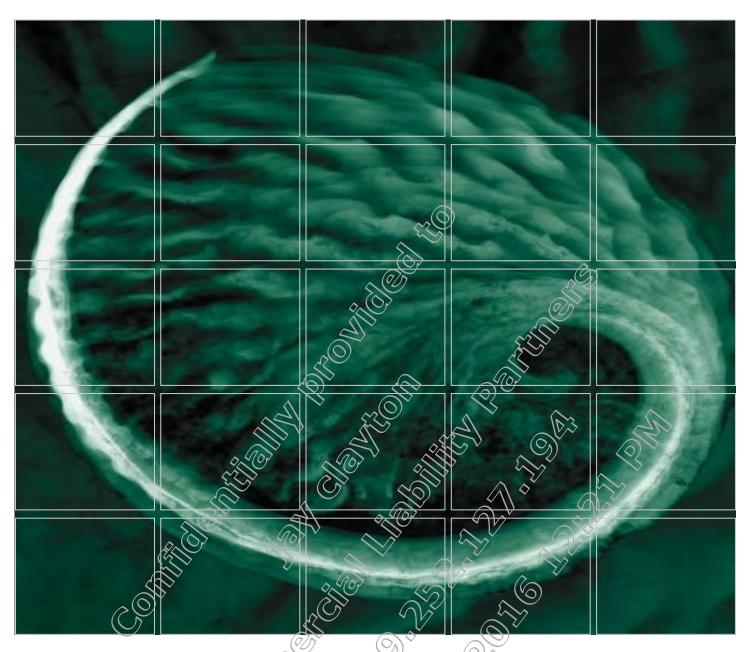
L/ICETEAM/EQUIPHIST/Trans/GenXfmrInfo/TrSpreadsheet//KinotronRoom

Tank # Marked on side in Underlined Yellow*	Sample Date	PCB Concentration	Approximate Tank Dimensions	Approximate Tank Volume* * (gallons)
1	March 15,2002	not detected	35" X 18" X 25"	68
2	March 15,2002	10	35" X 18" X 25"	68
3	January 3, 2002	55	58" Tall X 26"Dia.	133
4	January 3, 2002	12	42" Tall X 32" Dia.	146
5	January 3, 2002	22	45" Tall X 42" Dia.	270
6	January 3, 2002	3	45" Tall X 42" Dia.	270
7	January 3, 2002	o C	45" Tall X 42" Dia.	270
8	January 3, 2002	not detected	45" Tall X 42" Dia.	270
9	January 3, 2002	12	59" Tall X 36" Dia.	260
10	January 3, 2002	not detected	60" Tall X 26" Dia.	138
11	January 3, 2002	not detected	57" Tall X 48" Dia.	446
12	January 3, 2002	not detected	46" Tall X 36" Dia.♦	203
13	January 3, 2002	not detected	34" Tall X 30" Dia.	104
14	January 3, 2002	not detected	36" Tall X 18" Dia.	40
150	January 3, 2002	not detected	62" Tall X 40" Dia.	337
16	January 3, 2002	12	61" Tall X 24" Dia.	120
17	January 3, 2002	not defected	52" Tall X 40" Dia.	283
18	March 15,2002	15	64" Tall X 36' Dia.	282

^{*} Numbers are written on the side of the tanks in yellow paint stick

^{**} Note that the volume calculations are estimates based on exterior dimensions. Most of the actual oil volumes will be much less based on fill levels, transformer core and winding volume, bushing and lead volumes.

Appendix A ERM Asbestos Survey Report – Crawford Station, July 2012



Asbestos Survey Midwest Generation

Midwest Generation Crawford Plant 3501 South Pulaski Chicago, Illinois

Project No. 0168420 July 2012



ERM has over 135 offices Across the following countries worldwide

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	\boldsymbol{E}	Aires Report

EXECUTIVE SUMMARY

Midwest Generation, LLC (MWGEN) retained Environmental Resources Management, Inc. (ERM) to perform an asbestos survey at the Midwest Generation Crawford Generating Station located at 3501 South Pulaski, Chicago, Illinois. The facility is comprised of the main plant including a boiler room, turbine room, switch house, and office areas; a crib house, wastewater treatment plant; locomotive house; crusher house, dock junction house, and conveyor structures; fly ash building; and various ancillary outbuildings. The purpose of the asbestos survey was to inspect the facility for the presence of materials suspected of containing asbestos, including an assessment of their condition, friability, and estimated quantity; analyze samples of the suspect asbestos-containing materials (ACMs) to determine their asbestos content; and to comment upon the implications of the presence of such material.

MWGEN provided ERM with an Asbestos Risk Assessment report concerning the boiler room, prepared by Aires, dated March 2011 (Aires report) and a Project Manual, prepared by United Analytical Services, Inc (UAS), dated October 2011, concerning the future asbestos abatement of Units 5 and 6 in the boiler house. A copy of the Aires report is included in Appendix D. The Aires report identified several ACMs, but did not consistently provide quantities of the ACMs. As a result, ERM used the Aires and UAS reports as a resource and did not sample some of the materials that Aires and UAS determined to contain asbestos.

Mr. Ronnie Richmond of MWGEN provided access and escorted ERM through the facility. Mr. Gregory A. Merritt, Illinois Department of Public Health (IDPH) Inspector License No. 100-01759 and Mr. Mathew D. Aigner IDPH Inspector License No. 100-07252 conducted the survey on June 19, 2012 through June 21, 2012 with the assistance of Mr. Michael Belke and Mr. Matthew Porter, both with ERM.

ERM collected and submitted 229 bulk samples of materials suspected of containing asbestos for analysis using Polarized Light Microscopy (PLM) in accordance with the Asbestos Hazard Emergency Response Act (AHERA) (USEPA Method 600-R-116, July 1993). EPA considers a material to contain asbestos if at least one sample (of three per homogeneous material) is greater than 1% asbestos. Based on the PLM analytical results, six of the non-friable samples were reanalyzed using the Transmission Electron Microscopy (TEM) method and six of the friable samples were reanalyzed using the Point Counting (PC) method. Based on the Aires report, ERM's inspection, and the PLM, TEM, and PC analytical data, ERM determined that the following suspect ACMs

contains greater than 1% asbestos:

- Plaster materials throughout the switch house and turbine room (approx. 159,100 s.f.);
- 9"x9" black floor tile and mastic on the 4th floor office area of the switch house (approx. 1,000 s.f.);
- Mastic beneath 1'x1' dark gray floor tile on the 4th floor office area of the switch house (approx. 3,300 s.f.);
- Mastic beneath 1'x1' dark tan floor tile on the 4th floor office area of the switch house (approx. 300 s.f.);
- Maroon sheet flooring in room 413 of the switch house (approx. 100 s.f.);
- Thermal systems insulation (including pipe insulation and pipe fitting insulation throughout the switch house, turbine room, boiler house, crib house, and outbuildings (approx. 119,600 l.f.);
- Duct insulation in the 4th floor air handler room in the turbine room (approx. 600 s.f.) and in the 2nd floor locker room in the boiler house (approx. 250 s.f.);
- 9"x9" green floor tile, 9"x9" gray floor tile and mastic on the 2nd floor telecom room in the turbine room (approx. 335 s.f.);
- Mastic beneath 1'x1' white floor tile with tan streaks on the 1st floor shop area of the turbine room (approx. 500 s.f.);
- Transite panels/material located throughout the boiler house, turbine room, switch house, dock junction house, fly ash building, coal conveyor housing and out buildings (approx. 97,400 s.f.);
- Boilers 7 and 8 and related system (ash hopper, expansion tanks and ducts, etc.) insulation (approx. 340,000 s.f.);
- Boilers 5/6 TSI and boiler insulation (approx. 4,680 cubic yards);
- Exterior corrugated Caibestos outside the boiler house (approx. 126,600 s.f.);
- Interior window glazing in the boiler house, turbine room, switch house, fly ash building, crusher/conveyor buildings, locomotive house, and other out buildings (approx. 78,700 l.f.);
- Exterior window caulk on the boiler house, turbine room, switch house, fly ash building, crusher/conveyor buildings, locomotive house, and other out buildings (approx. 15,800 l.f.);
- Mastic beneath floor tile in the old security office of the boiler house (approx. 400 s.f.);
- Assumed roofing material on the structures (approx. 275,000 s.f.);
- Assumed cloth wrap on exposed electrical equipment throughout the switch house, crib house, and out buildings (approx 1,700 l.f.);
- Assumed fire doors throughout the facility (approx. 60 doors);
- Assumed flange gaskets throughout the boiler house (unknown quantity); and

• Assumed floor tile and mastic in an inaccessible office area of the boiler house (approx. 1,000 s.f.).

Prior to demolition these materials will need to be removed by appropriately licensed and trained asbestos professionals in accordance with applicable regulations including OSHA (29 CFR 1926.1101), EPA NESHAPS (40 CFR Part 61), and TSCA Title II AHERA/ASHARA (40 CFR Part 763) as well as applicable Illinois and Cook County regulations.



1.0 INTRODUCTION

1.1 PURPOSE

Midwest Generation, LLC. (MWGEN) retained Environmental Resources Management, Inc. (ERM) to perform an Asbestos Survey at the Crawford Generating Station located at 3501 South Pulaski Avenue in Chicago, Illinois ("the Site"). The purpose of the asbestos survey was to inspect the facility for the presence of materials suspected of containing asbestos, including an assessment of their condition, friability, and estimated quantity; analyze samples of the suspect asbestos-containing materials (ACMs) to determine their asbestos content; and to comment upon the implications of the presence of such materials prior to the demolition of the onsite buildings.

1.2 PERSONNEL

Mr. Ronnie Richmond of Midwest Generation provided access and escorted ERM through the facility. Mr. Gregory A. Merritt, Illinois Department of Public Health (IDPH) Inspector License No. 100-01759 and Mr. Mathew D. Aigner IDPH Inspector License No. 100-07252 conducted the survey on June 19, 2012 through June 21, 2012 with the assistance of Mr. Michael Belke and Mr. Matthew Porter, both with ERM. Messrs. Merritt and Aigner remobilized to the facility on July 17, 2012 to quantify the ACMs. Documentation of licensure and certification for Messrs. Merritt and Aigner is included in Appendix D.

1.3 FACILITY DESCRIPTION

The facility consists of approximately 80 acres of land located east of Pulaski Road and north of the Sanitary and Ship Canal at 3501 South Pulaski Road, Chicago, Illinois (Figure 1). The facility is improved with the following main buildings:

 Main Plant – includes the switch house, office areas, turbine room and boiler room totaling approximately 200,000 square feet;

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- An approximately 5,400-square foot crib house;
- An approximately 3,300-square foot locomotive house;

- An approximately 5,000-square foot wastewater treatment plant;
- An approximately 600-square foot guard shack;
- An approximately 2,000-square foot dock junction house;
- An approximately 2,000-square foot crusher house;
- An approximately 5,600-square foot coal handling building;
- An approximately 2,800-square foot tractor shed; and
- Various out buildings including offices, storage buildings, and conveyor structures.

2.1 INSPECTION

The survey consisted of the inspection and sampling of friable and non-friable suspect ACMs. ERM inspected building materials such as surfacing material, flooring, mastics, ceiling tile, thermal insulation, and transite materials.

ERM identified each distinct suspect ACM, defined as a homogeneous sampling area (HSA) based on type, age, color or other construction characteristics. ERM also assessed the condition and friability of each material. In addition, ERM has provided an estimate of the quantity of each material. It should be noted that the estimates of asbestos materials in the buildings was based on material that were readily visible. It should be expected that during demolition activities, additional asbestos materials will be discover inside walls and above solid ceilings.

In addition, the some portions of the inspection were conducted with little or no lighting. As a result, these areas were inspected with use of flashlights and daylight (through windows).

2.2 SAMPLING

During the survey, ERM collected at least three (3) samples for each HSA identified.

Table 1 in Appendix A summarizes the materials sampled by ERM and their respective locations. Figures 2 through 38 in Appendix A show the sample locations and the extent of ACMs identified in connection with the facility.

2.3 ANALYSIS

ERM submitted 229 samples collected during the survey to EMSL Analytical Inc. (EMSL) in Chicago, Illinois. EMSL is an American Industrial Hygiene Association (AIHA) accredited laboratory that successfully participates in the National Institute of Standards & Technology's (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) for asbestos bulk sample analysis.

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EMSL performed analysis using Polarized Light Microscopy (PLM) in accordance with the Asbestos Hazard Emergency Response Act (AHERA) (USEPA Method 600-R-116, July 1993). EPA considers a material to contain asbestos if at least one sample of the material is greater than 1% asbestos. ERM utilized the "positive stop" analysis procedure for samples collected for each HSA as recommended in the Asbestos Hazard Emergency Response Act (AHERA) (USEPA Method 600-R-116, July 1993). For any HSA where the first sample was determined to be positive for asbestos, then the laboratory did not analyze the remaining samples in that HSA, and the HSA is asbestos containing. Based on the PLM analytical results, six of the non-friable samples were reanalyzed using the Transmission Electron Microscopy (TEM) method and six of the friable samples were reanalyzed using the Point Counting (PC) method.

A copy of the laboratory analytical results is included in Appendix C.

Table 2 summarizes the materials that tested to be positive for asbestos. Photos of the confirmed ACMs are included in Appendix B.

TABLE 2 SUMMARY OF FINDINGS

Sample No.	Material Description	Location	Condition (G/F/P)	Friable (Y/N)	Asbestos Content	Estimated Quantity
CR-006	Plaster	Switch House and Turbine	F	Y	1.75% Chrysotile	159,100 s.f.
CR-007	Materials	Room (1st and 2nd Floors)		<i>y</i>	4% Chrysotile	
CR-010			~ (9/)		4% Chrysotile	
CR-014	9"x9" Black	4th Floor Switch House Office	Ğ	N	4% Chrysotile (tile)	1,000 s.f.
	Floor Tile		470		7% Chrysotile (mastic)	
CR-023	1'x1' Dark	4th Floor Switch House Office	(\\\G	N	ND (tile)	3,300 s.f.
	Gray Floor	4	(2)		2% Chrysotile (mastic)	
	Tile	(0				
CR-035	Thermal	Switch House, Turbine Room,	F	Y	10% - 60% Chrysotile	119,600 l.f.
CR-053	System	Boiler Room, Turbine Room,			-405	
CR-082	Insulation	and Crib House,		¬ //	300	
CR-085					~_	
CR-107		120	~	^		
CR-062	Duct	4 th Floor Air Handler Room	(\F)	Y	50% Chrysotile	850 s.f.
CR-187	Insulation	Boiler House – 2nd Floor	21	1222 V	(0)	
		Locker Room				22
CR-074	9"x9" Green	Turbine Building – 2 nd Floor	Ŭ F ←	N	5% Chrysotile	260 s.f.
	Floor Tile	Telecom Room	>			>
CR-077	9"x9" Gray	Turbine Building – 2nd Floor	F) N	7% Chrysotile (tile)	75 s.f.
	Floor Tile	Telecom Room	. (00)	× (,	2% Chrysotile (mastic)	
CR-088	1'x1' Dark	Switch House (Assembly	8	N	3% Chrysotile (mastic)	300 s.f.
	Tan Floor Tile	Room)		<u> </u>		
	w/Brown		. \\/	~ >		
	Streaks	\supset			2//	
CR-101	1'x1' White	Turbine Room – 1st Floor	∕√ G	^ N/	2% Chrysotile (mastic)	
	Floor Tile	Q	(0)			= 4
	w/Tan		5	~2)		500 s.f.
	Streaks		4	1/2		
CR-119	Maroon Sheet	Switch House – Room 413	G ^	N (20% Chrysotile	100 s.f.
	Flooring	(9/)	(0)			
CR-125	Transite	Inside Switch House, Turbine	(F)	N _A	25%-30% Chrysotile	97,400 s.f.
CR-173	Panels and	Room, Crib House, and Out	\sim (O)	-///	/	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Materials	Buildings and Outside Main	\bigcirc			
		Plant, Dock Junction House,	\ \//	(0)		
		Crusher House, Conveyor	~			
		Structures, and Fly Ash	^			
		Building	//			
CR-148	Boiler	Boiler Room (5/6 Boiler)	P/O	Y	20% Chrysotile	
011 1 10	Insulation	zeneczoni (e, e zener)	- 4 1/2	, v -	20% Amosite	4,680 c.y.
CR-151	Boiler	Boiler Room – Boiler 7	E	Y	4% Chrysotile	130,000 s.f.
	Insulation		- 1	1		100,000 0.1.
CR-154	Boiler	Boiler Room – Boiler 8	G	Υ	10% Chrysotile	157,000 s.f.
CI 101	Insulation	Doner Room Doner o	J	1	1070 Chrysothe	107,000 3.1.
CR-157	Ash Hopper	Boiler Room – Boiler 8	G	Y	50% Chrysotile	9,000 s.f.
CIV-13/	Insulation	Polici Room – Bollet o	G	1	50 /0 Cm y 50 me	7,000 5.1.
CR-160	Exterior	Main Plant Exterior	P	Y	30% Chrysotile	126 600 a f
CIV-100		IVIAIII FIAIII EXTELIOL	ľ	1	50 % Chrysothe	126,600 s.f.
	Corrugated					
CD 150	Galbestos	D			100/ 61	0.000 (
CR-170	Condenser	Basement of Turbine Room	G	Y	10% Chrysotile	9,000 s.f.
	Housing					
	Insulation					

Sample No.	Material Description	Location	Condition (G/F/P)	Friable (Y/N)	Asbestos Content	Estimated Quantity
CR-177	Interior Window Glazing	Boiler Room, Turbine Room, Switch House, Fly Ash Building, Crusher/Conveyor Buildings, Locomotive Building, and Other Out Buildings	F	Y	3% Chrysotile*	78,700 1.f.
CR-200	Black Mastic Beneath Tile	Boiler House – Old Security Office	G	N	2% Chrysotile	400 s.f.
CR-208 CR-220	Exterior Window Caulk	Boiler Room, Turbine Room, Switch House, Fly Ash Building, Crusher/Conveyor Buildings, Locomotive Building, and Other Out Buildings	F	Y	3% to 3.25% Chrysotile*	15,800 l.f.

*The laboratory analytical results for the exterior window caulk and interior window putty appeared to be inconsistent from building to building. ERM understands that the boiler room, switch bouse, turbine room, and locomotive building were constructed in approximately the same time period. Based on appearance, texture, and the limited amount of samples collected, ERM has assumed that the window caulk and putty on these structures are asbestos containing as evidenced by the analytical results for samples CR-208, CR-220, and CR-177, respectively.

"HSA" indicates Homogeneous Sampling Area

"G/F/P" indicates the materials condition as "good", "fair

"Y/N" indicates "yes" or "no".

"NA" indicates "Not Applicable".

"ND" indicates "Not Detected".

"c.y." indicates "cubic yards".

"s.f." indicates "square feet".
"l.f." indicates "linear feet".

"ea" indicates "each".

4.1 CONCLUSIONS

Based on the results of this survey, the following materials contain or are assumed to contain greater than 1% asbestos:

- Plaster materials throughout the switch house and turbine room (approx. 159,100 s.f.);
- 9"x9" black floor tile and mastic on the 4th floor office area of the switch house (approx. 1,000 s.f.);
- Mastic beneath 1'x1' dark gray floor tile on the 4th floor office area of the switch house (approx. 3,300 s.f.);
- Mastic beneath 1'x1' dark tan floor tile on the 4th floor office area of the switch house (approx. 300 s.f.);
- Maroon sheet flooring in room 413 of the switch house (approx. 100 s.f.);
- Thermal systems insulation (including pipe insulation and pipe fitting insulation throughout the switch house, turbine room, boiler house, crib house, and outbuildings (approx. 119,600 l.f.);
- Duct insulation in the 4th floor air handler room in the turbine room (approx. 600 s.f.) and in the 2nd floor locker room in the boiler house (approx. 250 s.f.);
- 2"x9" green floor tile, 9"x9" gray floor tile and mastic on the 2nd floor telecom room in the turbine room (approx. 335 s.f.);
- Mastic beneath 1'x1" white floor tile with tan streaks on the 1st floor shop area of the turbine room (approx. 500 s.f.);
- Transite panels/material located throughout the boiler house, turbine room, switch house, dock junction house, fly ash building, coal conveyor housing and out buildings (approx. 97,400 s.f.);
- Boilers 7 and 8 and related system (ash hopper, expansion tanks and ducts, etc.) insulation (approx. 340,000 s.f.);
- Boilers 5/6 TSI and boiler insulation (approx. 4,680 cubic yards);
- Exterior corrugated Galbestos outside the boiler house (approx. 126,600 s.f.);
- Interior window glazing in the boiler house, turbine room, switch house, fly ash building, crusher/conveyor buildings, locomotive house, and other out buildings (approx. 78,700 l.f.);
- Exterior window caulk on the boiler house, turbine room, switch house, fly ash building, crusher/conveyor buildings, locomotive house, and other out buildings (approx. 15,800 l.f.);

- Mastic beneath floor tile in the old security office of the boiler house (approx. 400 s.f.);
- Assumed roofing material on the structures (approx. 275,000 s.f.);
- Assumed cloth wrap on exposed electrical equipment throughout the switch house, crib house, and out buildings (approx 1,700 l.f.);
- Assumed fire doors throughout the facility (approx. 60 doors);
- Assumed flange gaskets throughout the boiler house (unknown quantity); and
- Assumed floor tile and mastic in an inaccessible office area of the boiler house (approx. 1,000 s.f.).

4.2 RECOMMENDATIONS

4.2.1 General Recommendations

Prior to demolition these materials will need to be removed by appropriately licensed and trained asbestos professionals in accordance with applicable regulations including OSHA (29 CFR 1926.1101), EPA NESHAPS (40 CFR Part 61), and TSCA Title II AHERA/ASHARA (40 CFR Part 763) as well as applicable Illinois and Cook County regulations.

5.1 LIMITATIONS

A combination of visual inspection of repetitive structures and confirmatory sampling, as required, was undertaken. However, it was not reasonably practicable to sample every item. ERM collected bulk samples of suspect ACMs at points that appeared to be representative locations. Consequently, some items not found to contain asbestos may comprise asbestos materials outside the immediate location of the sample point.

It may not be possible to expose the entire fabric of the building and their contents and therefore some hazards may be obscured. Examples of this could include hidden voids/risers, bricked up voids/risers, fuses, switchgear and live electrical apparatus, gaskets for pipes etc. Although ERM has provided an accurate amount of asbestos materials in the buildings, it is common to encounter additional asbestos materials inside walls and above solid ceilings during demolition.

In addition, portions of the inspection were conducted with little or no lighting. As a result, these portions of the inspection were conducted with use of flashlights and daylight (through windows).

Materials assumed to contain asbestos include floor tile and mastic in an inaccessible office area; roofing materials; cloth wrap on electrical equipment, fire doors, and flange gaskets. These materials were not sampled due to safety concerns and have therefore been assumed by ERM to contain asbestos.

5.2 SPECIAL TERMS AND CONDITIONS

ERM gathered and/or prepared this report and all field data, notes, and laboratory test data in accordance with the agreed-upon scope of work and generally accepted engineering and scientific practices in effect at the time of ERM's investigation of the site.

The statements, conclusions and opinions contained in this report only are intended to give approximations of the environmental conditions of the site limited to the particular environmental issues actually targeted by ERM's investigation, as agreed upon by Midwest Generation and ERM.

5.3 USER RELIANCE

This report was prepared for the sole and exclusive benefit and use of Midwest Generation LLC. Notwithstanding delivery of this report by ERM or client to any third party, any copy of this report provided to a third part is provided for informational purposes only without the right to rely. Reliance on this report by any other person(s) or entity(ies) is strictly at their own risk, and ERM makes no warranties to person(s) or entity(ies), other than client who use the information provided in this report. If other person(s) or entity(ies) wish to rely upon this report (i.e., lenders, mortgagers, insurance companies, or other parties to a transaction), ERM will require that such parties agree in writing to ERM's contract terms.



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TABLE 1 MIDWEST GENERATION - CRAWFORD GENERATING STATION CHICAGO, ILLINOIS PAGE 1 OF 10

HSA No.	Sample Number	Sample Locations	Material Description	Material Location	Condition (G/F/P)	Friable (Y/N)	ACM (Y/N) (PLM)	ACM (Y/N) (Point Count)	ACM (Y/N) TEM
No.	CR-001 CR-002	405 4th Floor Admin Office	2' x 4' White Ceiling Tile w/	Switch House -	G	Y	N N	N/A	N/A
1	CR-003	Room adjacent to 4th Floor Admin Office							
	CR-004 CR-005 CR-006	405 414 Switch House 2nd Floor	Plaster Material	Switch House and Turbine Building	F	Y	CR-006-<1% Chrysotile CR-010-4% Chrysotile	CR-006 - 1.75% Chrysotile CR-007- 4.00% Chrysotile	N/A
	CR-007	Switch House 3rd Floor			^	(PZ)	<u> </u>	rS)	
2	CR-008	Switch House 4th Floor Adjacent to Air Handler Room					4		
	CR-009	Turbine Building - 2nd Floor Stairwell adjacent to Engine Room							A Company
	CR-010	Switch House 1st Floor Gen Room							
3	CR-011 CR-012 CR-013	405 405 405	1'×1' White Ceiling Tile	Switch House - 4th Floor Office	G		N	N/A O	N/A
4	CR-014 CR-015 CR-016	405 405 405 405	9" x 9" Black Floor Tile	Switch House - 4th Floor Office	F	V/N	Tile - 4% Chryostile Mastic - 7% Chrysotile	N/A V	N/A
5	CR-017 CR-018	405 4th Floor Room adjacent to Admin Office	2' x 4' White Ceiling Tile w/ Dots and Specs	Switch House - 4th Floor Office		0) ¢		NŽA ŽŽ	N/A
	CR-019	4th Floor Men's Room			(20			
	CR-020	4th Floor Hallway outside Men's Room	Terrazzo Flooring	Switch House - 4th Floor		/ N		N/A	N/A
6	CR-021 CR-022	4th Floor Men's Room Outside Room 413				9/	<i>></i>		

TABLE 1 MIDWEST GENERATION - CRAWFORD GENERATING STATION CHICAGO, ILLINOIS PAGE 2 OF 10

HSA No.	Sample Number	Sample Locations	Material Description	Material Location	Condition (G/F/P)	Friable (Y/N)	ACM (Y/N) (PLM)	ACM (Y/N) (Point Count)	ACM (Y/N) TEM
7	CR-023 CR-024 CR-025	4th Floor Hallway outside 405 4th Floor outside Elevator 4th Floor Hallway	1' x 1' Dark Gray Floor Tile w/ Tan Specs	Switch House - 4th Floor	G	N	Tile - ND Mastic 2% Chrysotile	N/A	N/A
	CR-026	outside 413 Switch House 4th Floor Stairwell	Red and Orange Stair Tread	Switch House and Turbine Room	G	N S	ZQ N	N/A	N/A
8	CR-027	Switch House 4th Floor Air Handler Room			\$		<u> </u>		
	CR-028	Turbine Building - 4th Floor Crossover							
	CR-029	4th Floor Admin Office	1' x1' Light Blue Floor Tile	Switch House - 4th Floor Office	G	N	N O	N/A	N
9	CR-030	4th Floor Admin Office) ;;			r Gr	A)
	CR-031	4th Floor Admin Office	42	0,	LAOP	^			Q
	CR-032	4th Floor Admin Office	6" Vinyl Baseboard	Switch House - 4th Floor Office		N V) N	N/A	N/A
10	CR-033	4th Floor Admin Office			, ,				7
	CR-034	4th Floor Admin Office), ⁷	01.20r					
	CR-035	Switch House 4th Floor Room w/ couch	3" Thermal Pipe Insulation	Switch House and Turbine Building		Y	25% Chrysotile	N/A N/A	N/A
11	CR-936	Switch House 4th Floor Stairwell adjacent to Fan Room	() 2) ₀		V	
	CR-037	Turbine Building - 2nd Floor Maintenance Training Room	$\sim (O)$		V				

TABLE 1 MIDWEST GENERATION - CRAWFORD GENERATING STATION CHICAGO, ILLINOIS PAGE 3 OF 10

HSA No.	Sample Number	Sample Locations	Material Description	Material Location	Condition (G/F/P)	Friable (Y/N)	ACM (Y/N) (PLM)	ACM (Y/N) (Point Count)	ACM (Y/N) TEM
	CR-038	Switch House 4th Floor Room w/ couch	Flooring Under Carpet	Switch House - 4th Floor Office	F	N	N	N/A	N/A
12	CR-039	Switch House 4th Floor Room w/ couch							
	CR-040	Switch House 4th Floor Room w/ couch				Ş	ZQ		
	CR-041	4th Floor Management Classroom	2' x 2' White Popcorn Ceiling Tile	Switch House - 4th Floor Office	F	Ž),	N	N/A	N/A
13	CR-042	4th Floor Management Classroom			0.0	017 57			
	CR-043	4th Floor Management Classroom							
	CR-044	4th Floor Management Classroom	3" Dark Tan Vinyl Baseboard	Switch House - 4th Floor Office		N	N Co	N/A	N/A
14	CR-045	4th Floor Management Classroom) > ~>	0		<i>y</i>	\wedge
	CR-046	4th Floor Management Classroom	(5		(D) 3	
15	CR-047 CR-048 CR-049	413 413 413	Ceiling Tile w/ Small and Large Dots	Switch House - 4th Floor Office		Y) N	N/A	N/A
16	CR-050 CR-051 CR-052	415 415 415	2 × 2 White Ceiling Tile w/ Fissures	Switch House - 4th Floor Office	G		NOV	N/A CO	N/A
17	CR-053	4th Floor Print Room Switch House 3rd Floor Staircase Turbine		Switch House and Turbine Building	F	9) ¢	50% Chrysofile		N/A
		Building - 1st Floor outside Generator Room			₩)			

TABLE 1 MIDWEST GENERATION - CRAWFORD GENERATING STATION CHICAGO, ILLINOIS PAGE 4 OF 10

HSA No.	Sample Number	Sample Locations	Material Description	Material Location	Condition (G/F/P)	Friable (Y/N)	ACM (Y/N) (PLM)	ACM (Y/N) (Point Count)	ACM (Y/N) TEM
NO.		Switch House	Interior Window	Switch House	P	Y	N N	N/A	N/A
		4th Floor Print Room	Putty	and Turbine Building					
	CR-057	Switch House							
	CR 057	3rd Floor							
18		Staircase							
	CR-058	Turbine Building - 2nd							
		Floor					<u> (()</u>		
		Maintenance Training				ξ			
	OD 050	Room	41.41.00.00					N/A	
19	CR-059 CR-060	414 414	1'x1' Tan Floor Tile w/ Specs	Switch House - 4th Floor Office	G	(0/1)	N	N/A (S)	N
	CR-061 CR-062	414	Dest Involution	Cook di II.			50% Chrysotile		N/A
	CR-062	Handler	Duct Insulation	Switch House		Y	50% Chrysotile		N/A
	CR-063	Room 4th Floor Air						~;<	
20		Handler Room			<u>(O)</u>		4	<i>₹</i> ₩	
	CR-064	4th Floor Air					Go.		
		Handler Room		. < 9)		(a) (c)	T	
	CR-065		Black Vibration	Switch House and Turbine	G 🚫	ON .	N	N/A	N/A
		4th Floor Air Handler	Dampening Cloth	Building	1	9			K.
		Room	2.40						$\langle Q \rangle^{\vee}$
21	CR-066	Turbine Room	(1)			4			
		- 2nd Floor Room 18		(9,			\Q	
	CR-067	Turbine Room	(0/n)		4	100	$\bigcap_{i} \bigvee_{j} (i) = \bigcap_{i} \bigvee_{j} (i) = \bigcap_{i} \bigvee_{j} (i) = \bigcap_{i} \bigvee_{j} (i) = \bigcap_{j} (i) = \bigcap_{i} (i) = \bigcap_{j} (i) = \bigcap_{j$	~ \	/
	CIT 007	- 1st Floor TR41		0.90					
	CR-068	Turbine Room	3" Brown Vinyl	Turbine Room -	Ğ	N	N	N/A	N/A
		- 1st Floor	Baseboard	1st Floor	. (0)		2012	(7- ² /	
	CR-069	Turbine Room				<	جر الا	\bigcirc	
22)-lst Floor		1	\mathcal{O}_{λ}	5	/ L	7	
	CR-970	Turbine Room - 1st Floor		(O)N	>	0 ¢		~	
						Z()	<u> </u>		
	CR-071	2nd Floor - Reactor Fan	Tan Vibration Dampening	Turbine Room	F) Y	//N V	N/A	N/A
	CR-072	Room 2nd Floor -	Cloth		4 M				
23	CK-0/2	Reactor Fan		~		^ (0)~		
	CR-073	Room 2nd Floor -	00			_ //	\sim		
		Reactor Fan					()		

TABLE 1 MIDWEST GENERATION - CRAWFORD GENERATING STATION CHICAGO, ILLINOIS PAGE 5 OF 10

HSA No.	Sample Number	Sample Locations	Material Description	Material Location	Condition (G/F/P)	Friable (Y/N)	ACM (Y/N) (PLM)	ACM (Y/N) (Point Count)	ACM (Y/N) TEM
	CR-074	2nd Floor - Telecom Room	9" x 9" Green Floor Tile	Turbine Room	F	N	5% Chrysotile	N/A	N/A
24	CR-075	2nd Floor - Telecom Room	0						
	CR-076	2nd Floor - Telecom Room							
	CR-077	2nd Floor - Telecom Room	9" x 9" Gray Floor Tile	Turbine Room	F	N S	Tile 7% Chrysotile Mastic 2% Chrysotile	N/A	N/A
25	CR-078	2nd Floor - Telecom Room				8	,	(°o	
	CR-079	2nd Floor - Telecom Room			2	<i>(2)</i>			
	CR-080	Switch House 4th Floor Admin Office	Drywall System	Switch House and Turbine Room		Y	N (N/A
26	CR-081	Turbine Building - 2nd Floor Room 8/9				6	Q	<u> </u>	^
	CR-081A	Turbine Building - 2nd Floor Room 11	0,50		~ Tor	5			OF
27	CR-082 CR-083 CR-084	Basement Basement Basement	Thermal/Pipe Insulation	Turbine Room		Y	10% Chrysotile	N/A	N/A
28	CR-085	Switch House 4th Floor Air Handler Room Switch House 3rd Floor	Insulation	Switch House and Turbine Room	F		30% Chrysofile		V/ N/A
	CR-087 CR-088	Assembly	Dark Tan Floor Tile w/ Brown	Switch House	G G	N	Tile - ND Mastic 3% Chrysotile	N/A	N/A
29	CR-089	Room Store Room/ Assembly Room	and Tan Streaks			9))`)			
	CR-090	Store Room/ Assembly Room			, and the second				

TABLE 1 MIDWEST GENERATION - CRAWFORD GENERATING STATION CHICAGO, ILLINOIS PAGE 6 OF 10

HSA No.	Sample Number	Sample Locations	Material Description	Material Location	Condition (G/F/P)	Friable (Y/N)	ACM (Y/N) (PLM)	ACM (Y/N) (Point Count)	ACM (Y/N) TEM
	CR-091	Columns in Basement	Spray-On Insulation	Basement	G	Y	N	N/A	N/A
	CR-092	Columns in Basement	moundon						
	CR-093	Columns in Basement							
30	CR-094	Columns in Basement	d						
	CR-095	Columns in Basement							
	CR-096	Columns in Basement				Ş	₂ (0)		
	CR-097	Columns in Basement				<u> </u>			
	CR-098	1st Floor Test Lab	Black Vinyl Baseboard and	Turbine Room	G	(0/17	N	N/A	N/A
31	CR-099	1st Floor Test Lab	Mastic		2.6	5			
	CR-100	1st Floor Test Lab							
32	CR-101 CR-102	1st Floor 1st Floor	1' x 1' White Floor Tile w/	Turbine Room	.0	N	Tile - ND Mastic 2% Chrysotile	N/A	N/A
	CR-103	1st Floor	Tan Streaks and	Control II			10/ Ch 121/ /	1.000/	N/A
	CR-104	South Wall	Exterior Window Caulk	Switch House			<1% Chrysotile/	1.00%	N/A
33	CR-105	1st Floor South Wall		. (1)	/ ~>	(0)		Δ.	\wedge
	CR-106	1st Floor South Wall	4			5		(D)3	E
34	CR-107 CR-108	Basement Basement	Thermal Insulation	Switch House and Turbine	, (i)	Y	50% Chrysotile	(N)A	N/A)
54	CR-109	Basement		Room	7.0.	4			
	CR-110	2nd Floor Office	1' x 1' Brown and Tan Floor Tile	Turbine Room	$\mathcal{O}_{\mathcal{A}^{\mathbf{G}}}$	N) N	♦ N/A	N
35	CR-111	2nd Floor Office	w/ Mastic		4	2/107	\bigcirc		//
	CR-112	2nd Floor Office	>>	0,500					
	CR-113	2nd Floor Office	Maroon Vinyl Baseboard and	Turbine Room	Ğ	N	.00	N/A	N/A
36	CR-114	2na Floor Oifice	Mastic		07	_<		(6)	
	CR-115	2nd Floor Office		17	\bigcirc	\bigcirc		·>	
	CR-116	2nd Floor - Room 15	Concrete Sub Floor	Turbine Reon) G	O _N O	N	N/A	N/A
37	CR-117	2nd Floor - Room 15			6	5	NV		
	CR-118	2nd Floor - Room 15	لہ		90				
38	CR-119 CR-120	Room 413 Room 413	Maroon Sheet Flooring	Switch House	F	N (20%/Chrysotile	N/A	N/A
50	CR-121	Room 413	~ (Ŏ)				9		
	CR-122	2nd Floor - Room 8/9	2' x 2' White Ceiling Tile	Turbine Room	G	Y \	N	N/A	N/A
39	CR-123	2nd Floor - Room 8/9	w/Large and Small Dots		£				
	CR-124	2nd Floor - Room 11	d		v)			
••••••	CR-125	4th Floor Switch Rooms	Transite Panels	Switch House	F	N	30% Chrysotile	N/A	N/A
40	CR-126	3rd Floor Switch Rooms							
	CR-127	2nd Floor Switch Rooms							

TABLE 1 MIDWEST GENERATION - CRAWFORD GENERATING STATION CHICAGO, ILLINOIS PAGE 7 OF 10

CR-128 4th Floor Switch Rooms Covering Switch House G N N CR-129 4th Floor Switch Rooms CR-130 2nd Floor Switch Rooms CR-131 2nd Floor Switch Rooms CR-132 2nd Floor Switch Rooms CR-132 2nd Floor Switch Rooms CR-133 1st Floor Switch Rooms CR-134 1st Floor	Point Count) (Y/N) TEM
CR-129 4th Floor Switch Rooms CR-130 2nd Floor Switch Rooms CR-131 2nd Floor Switch Rooms CR-132 2nd Floor Switch Rooms CR-132 1st Floor Switch Rooms CR-134 1st Floor	
CR-130 2nd Floor Switch Rooms CR-131 2nd Floor Switch Rooms CR-132 2nd Floor Switch Rooms CR-133 1st Floor Switch Rooms CR-134 1st Floor	
CR-130	
CR-130 2nd Floor Switch Rooms CR-131 2nd Floor Switch Rooms CR-132 2nd Floor Switch Rooms CR-133 1st Floor Switch Rooms CR-134 1st Floor	
CR-131 2nd Floor Switch Rooms CR-132 2nd Floor Switch Rooms CR-133 1st Floor Switch Rooms CR-134 1st Floor	
CR-131 2nd Floor Switch Rooms CR-132 2nd Floor Switch Rooms CR-133 1st Floor Switch Rooms CR-134 1st Floor	
41 Switch Rooms CR-132 2nd Floor Switch Rooms CR-133 1st Floor Switch Rooms CR-134 1st Floor	
41 Switch Rooms CR-132 2nd Floor Switch Rooms CR-133 1st Floor Switch Rooms CR-134 1st Floor	
CR-132 2nd Floor Switch Rooms CR-133 1st Floor Switch Rooms CR-134 1st Floor	
CR-133 Ist Floor Switch Rooms CR-134 Ist Floor	
CR-133 Ist Floor Switch Rooms CR-134 Ist Floor	
CR-133 1st Floor Switch Rooms CR-134 1st Floor	É
CR-133 1st Floor Switch Rooms CR-134 1st Floor	
CR-134 1st Floor	
CR-134 1st Floor	
	(92)
Switch Rooms	
	×
CR-135 Mezzanine Spray-On Crib House F Y N	N/A N/A
CR-136 Mezzanine Insulation CR-137 Mezzanine	
42	
CR-140 1st Floor	A. A
CR-141 1st Floor	103 -11
CR-142 Mezzanine Interior Window Crie House P Y	N/A N/A
43 CR-143 Mezzanine Putty CR-144 Mezzanine	2)
CR-145 Mezzanine Exterior Window Crib House P Y N	N/A N/A
44 CR-146 Mezzanine Catell	
CR-147 Mezzanine	
CR-148 Boiler 6-4 Boiler insulation Boiler Room G 20% Chrysotile	N/A N/A
45 CR-149 Boiler 6-5 20% Amosite CR-150 Boiler 5-3	
CR-151 6th Floor Boiler Insulation Boiler Room G Y 4% Chrysotile	N/A N/A
46 CR-152 6th Floor Boiler 7	
CR-153 6th Floor	₹/
CR-154 Boiler 84th Boiler Insulation Boiler Room Y 10% Chrysotile	N/A N/A
CR-155 Boiler 8 4th	
47 CR-150 Boller 8 4th Level	
CR 156 Boiler 8 4th	
Level (0/)	
CR-157 Boiler 8 4th Ash Hopper Boiler Room G Y 50% Chrysolile	N/A N/A
Level Insulation Mezzanine	
CR-158 Boiler 8 4th	
48 Level	
Mezzanine	
CR-159 Boiler 8 4th	
Level Mezzanine	

TABLE 1 MIDWEST GENERATION - CRAWFORD GENERATING STATION CHICAGO, ILLINOIS PAGE 8 OF 10

HSA	Sample Number	Sample Locations	Material	Material Location	Condition	Friable	ACM	ACM	ACM
No.	•		Description	•	(G/F/P)	(Y/N)	(Y/N) (PLM)	(Y/N) (Point Count)	(Y/N) TEM
	CR-160		Red Corrugated	Exterior	Р	Y	30% Chrysotile	N/A	N/A
		Room	Galbestos						
	CR-161	NEC Boiler							
		Room							
	CR-162	NEC Boiler							
		Room							
	CR-163	North Center							
49		Fan Room							
	CR-164	Level 8							
		Elevator					$_{\lambda}(O)$		
	CR-165	Level 8				Ş			
		Elevator							
	CR-166	Level 8							
		Elevator					,	(Za	
	CR-167	Control Room	2' x 4' White	Control Room	F	(O/Y)	N	N/A	N/A
			Ceiling Tile w/		\$.			44	
F0	CR-168	Control Room	Small Dots and		۸. (۲	5>			
50			Fissures		111				
	CR-169	Control Room							
	CR-170	Basement	Condenser	Turbine Room	(O)	Y	10% Chrysotile	N/A	N/A
51	CR-171	Basement	Housing	4	70				
	CR-172	Basement	Insulation				(a)	>	
	CR-173	East Shed	Gray Transite	Level 2 Fan Floor) F	N	25% Chrysotile	N/A	N/A
52	CR-174	West Shed	Panel	^ /					
	CR-175	West Shed		. ~!\	~>	(\bigcirc)	^ >	Λ.	
	CR-176	L2 Fan Floor	Interior Window	Boiler Room	P	✓> Y	3% Chrysotile	1.50%	N/A
53	CR-177	NW Stairs	Glazing		~ 11				UK,
	CR-178	NW Stairs	//				. \$\frac{1}{2} \times \qquad \qqqq \qqq \qqqq	(\mathcal{O}_{0})	(0) >
	CR-179	Boiler House	Plaster	Boiler Room	~4/6P	Y	N	N/A	N/A
					7//0	Ψ,		*>>	<u> </u>
	CR-180	Boiler House		(No		O ·	^
				,			? <i>)</i>	· 🤝	\ \Z\
	CR-181	Boiler House		_()		(0)	$\sim V$	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	//
		\wedge	(42)	(3)	<		4 1/2		
	CR-182	Boiler House		~ (10) V	^			$\langle \alpha \rangle_{\alpha}^{\gamma}$	
F4				5. O.		\ /	*	~ \ \/	
54	CR-183	Boiler House		'\)		~	\bigcirc \bigcirc \bigcirc	2//>	
				<			.00	, \(\frac{1}{2}\)	
	CR-184	Boiler House			0.4707	/	2~V		
	/						(()	(0)	
	CR-185	Boller House		. (<u>\</u>	
	(()			2		7)	
	CR-186	Boiler House			>		(O)		
				(92)	(O^{V}			
	CR-187	2nd Floor	Duct Insulation	Boiler Room	G 🦳	\sim \sim \sim	50% Chrysotile	N/A	N/A
		Locker Room			2)2))	\\ \\		
				-///	\bigcirc	/			
	CR-188	2nd Floor	لہ		\ \\/		(O_{λ})		
55		Locker Room	40		~	/			
				P		, (\mathcal{O}		
	CR-189	2nd Floor	~(O)						
		Locker Room	(()						
	<u>.</u>					$\langle \cap \rangle \rangle$	\		
						- 17/			***********

TABLE 1 MIDWEST GENERATION - CRAWFORD GENERATING STATION CHICAGO, ILLINOIS PAGE 9 OF 10

HSA No.	Sample Number	Sample Locations	Material Description	Material Location	Condition (G/F/P)	Friable (Y/N)	ACM (Y/N) (PLM)	ACM (Y/N) (Point Count)	ACM (Y/N) TEM
	CR-190	4th Floor Weight Room	1' x 1' Gray Floor Tile w/ Black Mastic	Boiler Room	G	N	N	N/A	N
56	CR-191	4th Floor Weight Room							
	CR-192	4th Floor Weight Room							
	CR-193	4th Floor Weight Room	Drywall System	Boiler Room	G	Υ	N N	N/A	N/A
57	CR-194	4th Floor Weight Room				8	<u>~</u>		
	CR-195	4th Floor Weight Room			2. 6				
	CR-196	4th Floor Weight Room	Small Dots and	Boiler Room		Υ	N		N/A
58	CR-197	4th Floor Weight Room	Small Fissures		30)				
	CR-198	4th Floor Weight Room		. L.) ` > ~			γ Δ.	\wedge
	CR-199	Office	1' x 1' Gray Floor Tile over 1' x 1' ⁶ Brown Floor Til <i>e</i>	Boiler Room	G	≫ N	Tile - ND Mastic 2% Chrysotile		N/A
59	CR-200 CR-201	Old Security Office Old Security Office	and Mastic	0>		\$			
60	CR-202 CR-203 CR-204		1' x 1' Feige Floor Tile w/ White Specks and Mastic	Boiler Room	G G	N	N	N/A N/A	N
61	CR-205 CR-206 CR-207	Store Room Store Room Store Room	2' x 4' White Ceiling Tile w/ Dots and Slashes	Boiler Room	G A Jor	Y Y	N N	N/A W	N/A
62	CR-208 CR-209	Boiler House Boiler House	Window Caulk	Exterior Boiler Room		N	3% Chrysotile	2.00%	N/A
02	CR-210	Boiler House							
63	CR-211 CR-212 CR-213	Level 6 Level 6 Level 6	Vibration Dampener Gasket	Foiler Room) Y		N/A	N/A
	CR-214	Sodium Hydroxide Tank	Tank Insulation	WWTP	G W	Y	O N	N/A	N/A
64	CR-215	Sodium Hydroxide Tank	(6)		^	9/	>		
	CR-216	Sodium Hydroxide Tank			ε	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			

TABLE 1 MIDWEST GENERATION - CRAWFORD GENERATING STATION CHICAGO, ILLINOIS PAGE 10 OF 10

HSA No.	Sample Number	Sample Locations	Material Description	Material Location	Condition (G/F/P)	Friable (Y/N)	ACM (Y/N) (PLM)	ACM (Y/N) (Point Count)	ACM (Y/N) TEM
	CR-217	Interior Window	Interior Window Caulk	WWTP	р	Y	N	N/A	N/A
65	CR-218	Interior Window							
	CR-219	Interior Window							
	CR-220		Exterior Window	Locomotive House	Р	Y	3% Chrysotile	3.25%	N/A
66	CR-221	Western Exterior Wall				ζ	20		
	CR-222	Western Exterior Wall				8	♡		
67	CR-223 CR-224 CR-225	Coal Plant Coal Plant Coal Plant	2' x 2' White Ceiling Tile w / Dots and Specs	Coal Plant Office	G	(N	N/A	N/A
			1' x 1' Gray Floor Tile	Guard Shack	G	N	N		N
68	CR-227	Guard Shack							
	CR-228	Guard Shack		Š			_970		

[&]quot;HSA" indicates Homogeneous Sampling Area.

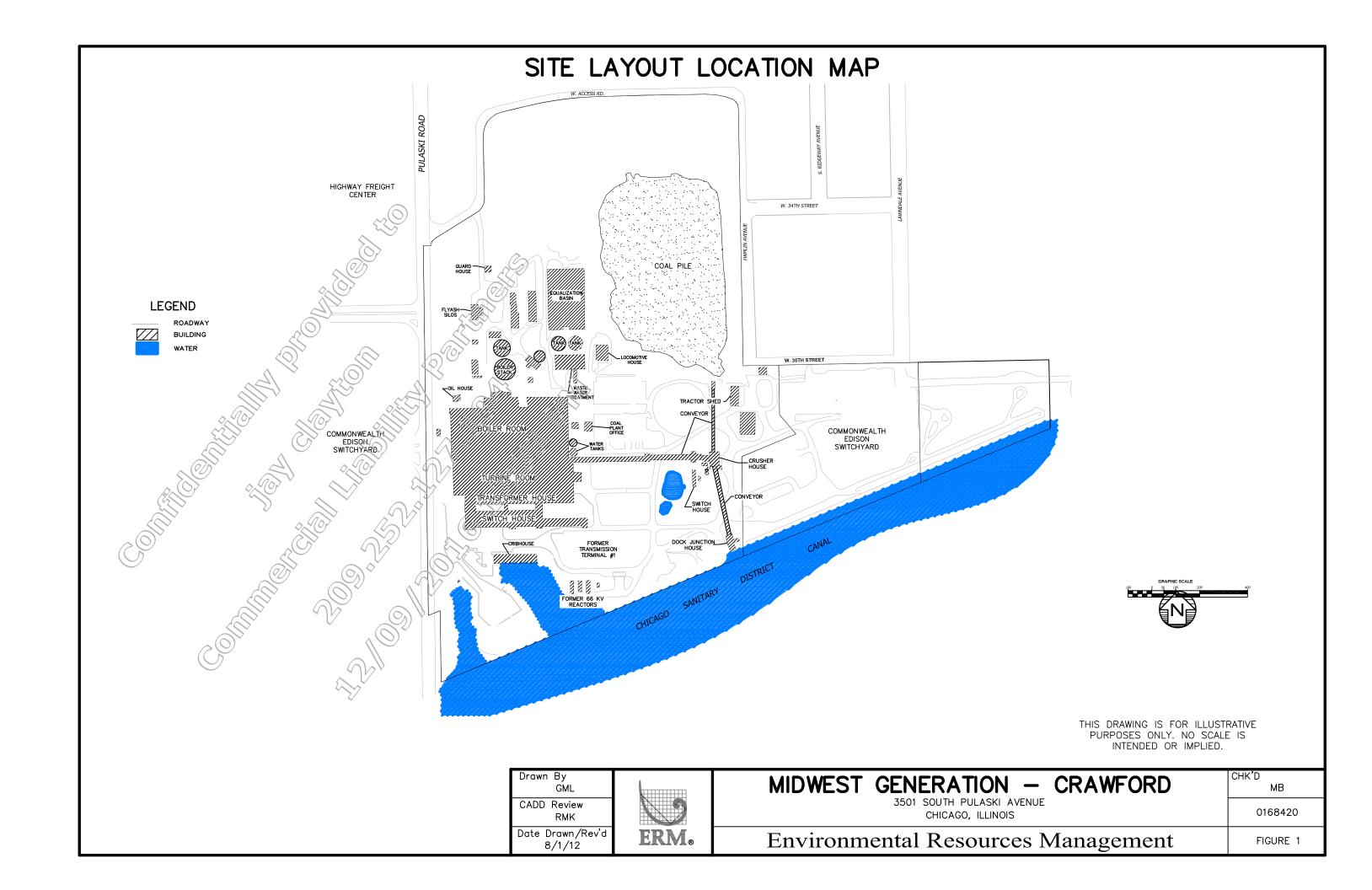
[&]quot;G/F/P" indicates the materials condition as "good", "fair" or "poor

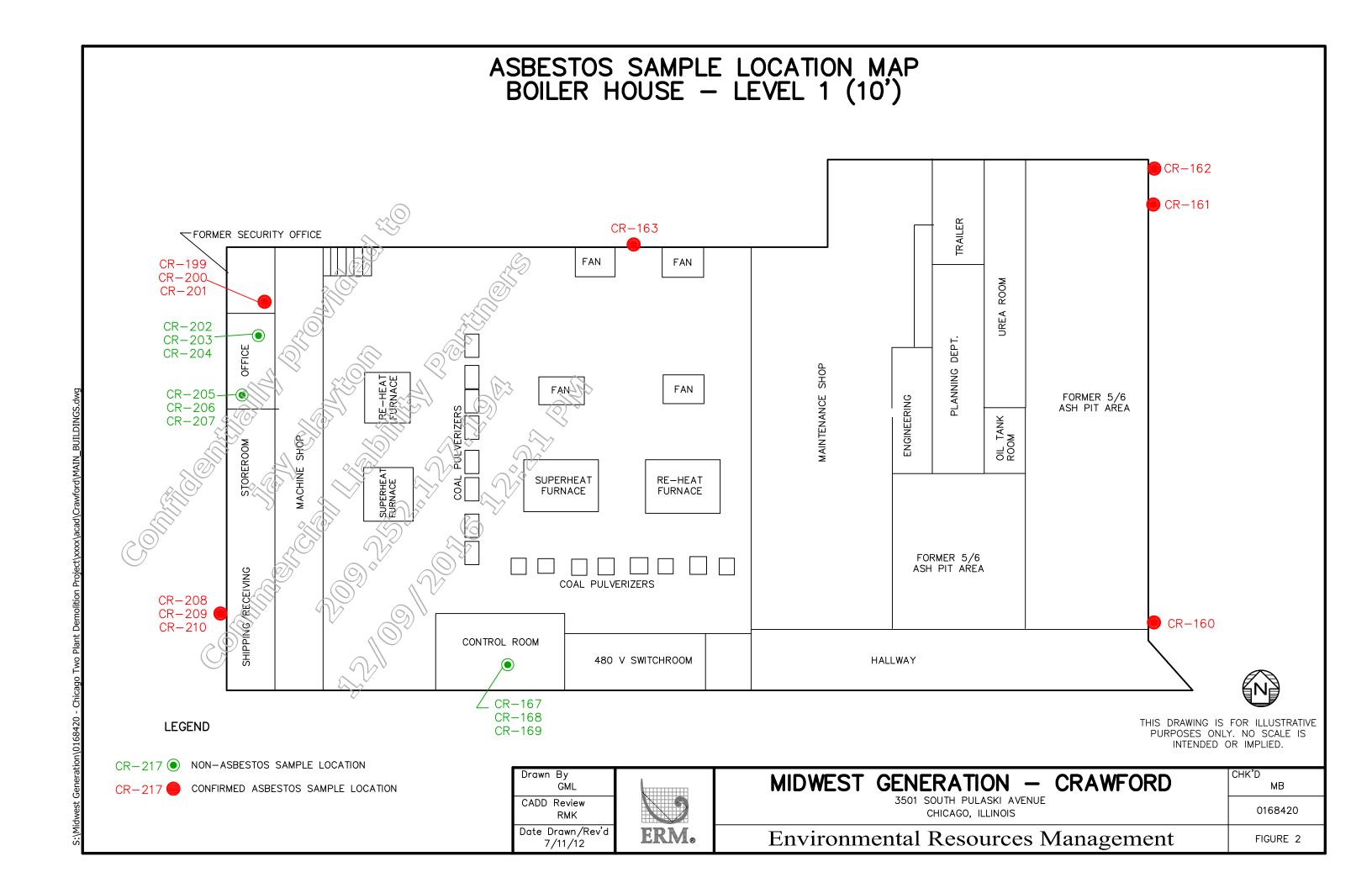
[&]quot;N/A" indicates "Not Analyzed"

[&]quot;Y/N" indicates "yes" or "no".

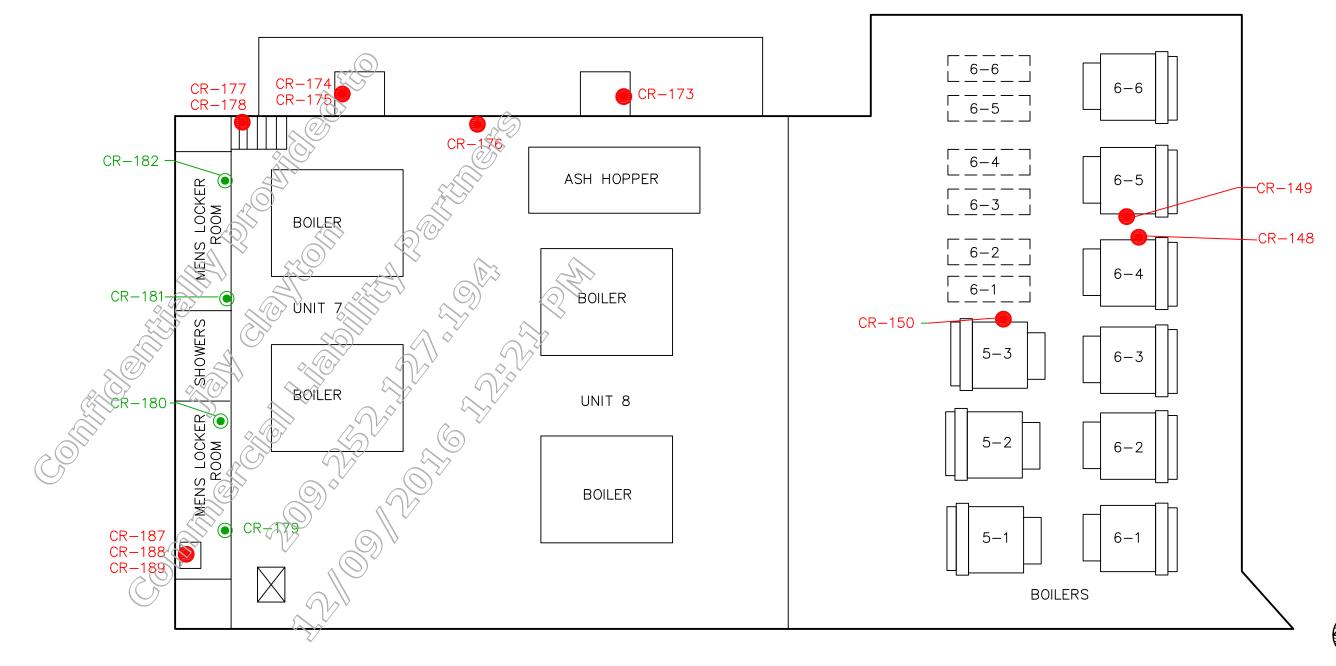
[&]quot;PLM" indicates Polarized Light Microscopy (EPA 600/R-93/116)

[&]quot;Point Count" indicates Asbestos Analysis of Bulk Material via EPA 600/R-93/116. Quantification using 400 Point Count Procedure "TEM" indicates Transmission Electron Microscopy (EPA 600/R-93/116 Section 2:5.5.17)





ASBESTOS SAMPLE LOCATION MAP BOILER HOUSE - LEVEL 2 (41')



LEGEND

CR-217 ● NON-ASBESTOS SAMPLE LOCATION

CR-217 CONFIRMED ASBESTOS SAMPLE LOCATION

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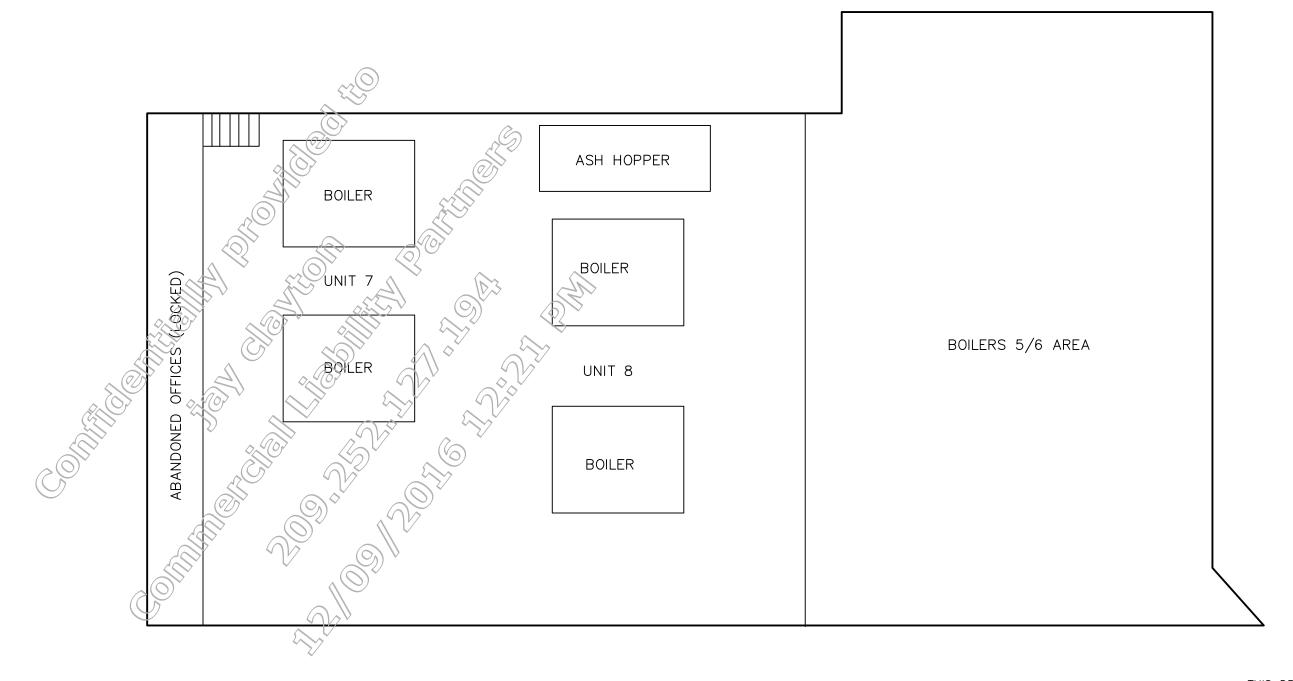
MIDWEST GENERATION -**CRAWFORD** 3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS

Environmental Resources Management

MB 0168420

FIGURE 3

ASBESTOS SAMPLE LOCATION MAP BOILER HOUSE - LEVEL 3 (70' 6")



N

LEGEND

CR-228 NON-ASBESTOS SAMPLE LOCATION

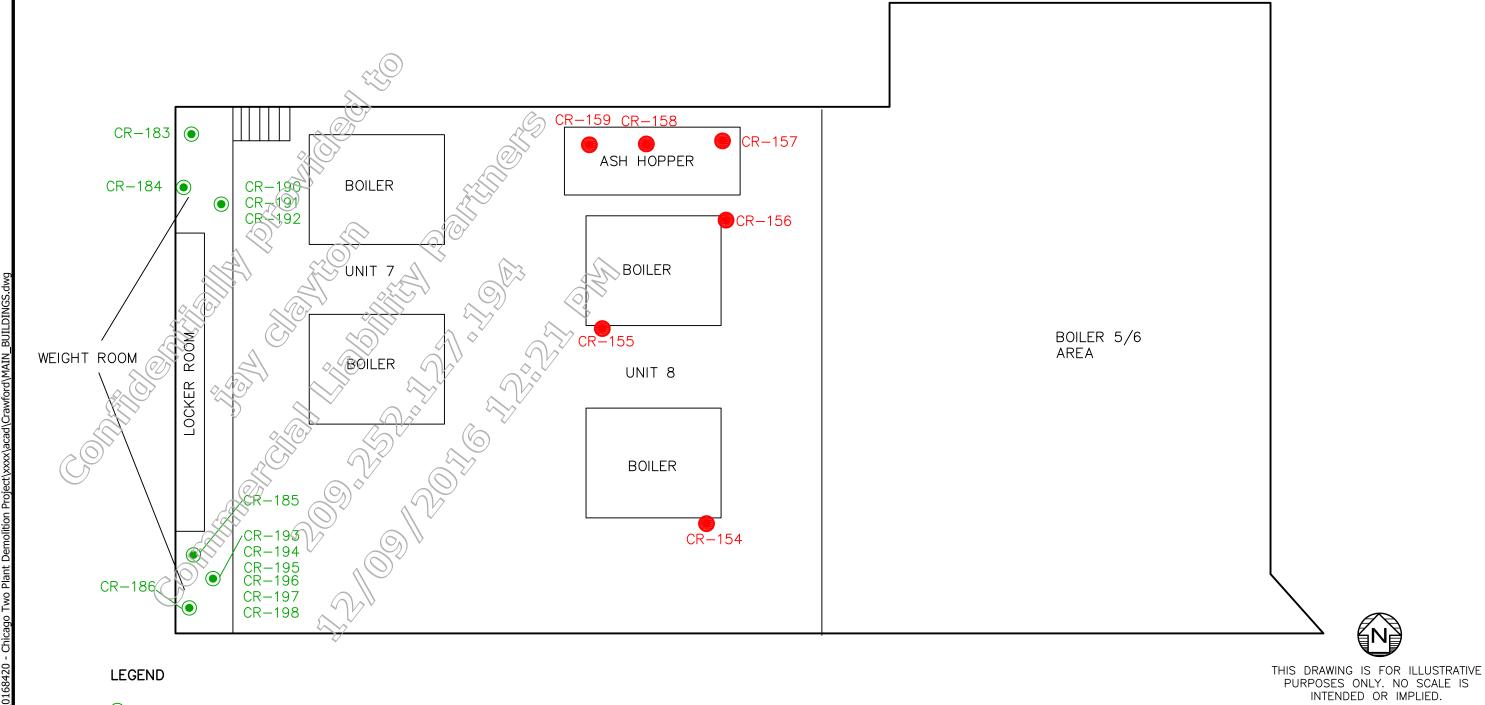
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MIDWEST GENERATION - CRAWFORD	CHK'D MB
3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	0168420
Environmental Resources Management	FIGURE 4

ASBESTOS SAMPLE LOCATION MAP BOILER HOUSE - LEVEL 4 (88' 6")



CR-217 ● NON-ASBESTOS SAMPLE LOCATION

CR−217 CONFIRMED ASBESTOS SAMPLE LOCATION

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	3501 SOUTH PULASKI AVENUE	

CHICAGO, ILLINOIS

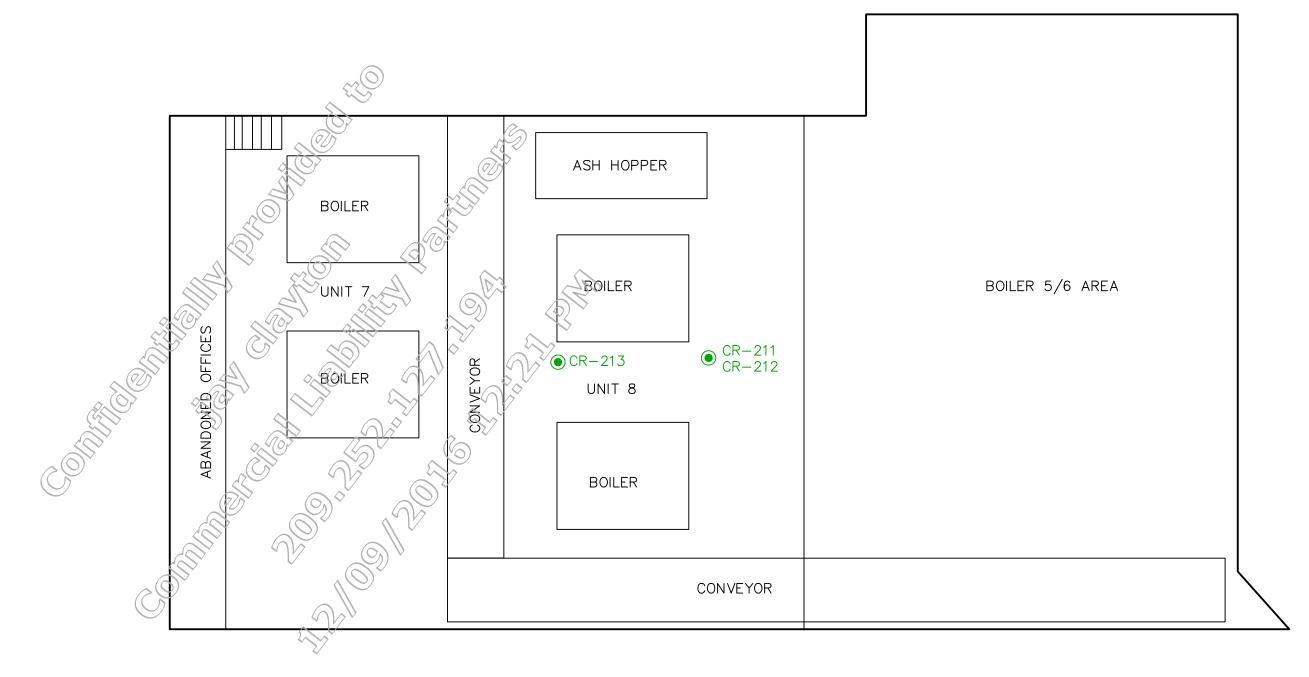
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FIGURE 5

ASBESTOS SAMPLE LOCATION MAP BOILER HOUSE - LEVEL 5 (106')



LEGEND

CR-228 NON-ASBESTOS SAMPLE LOCATION

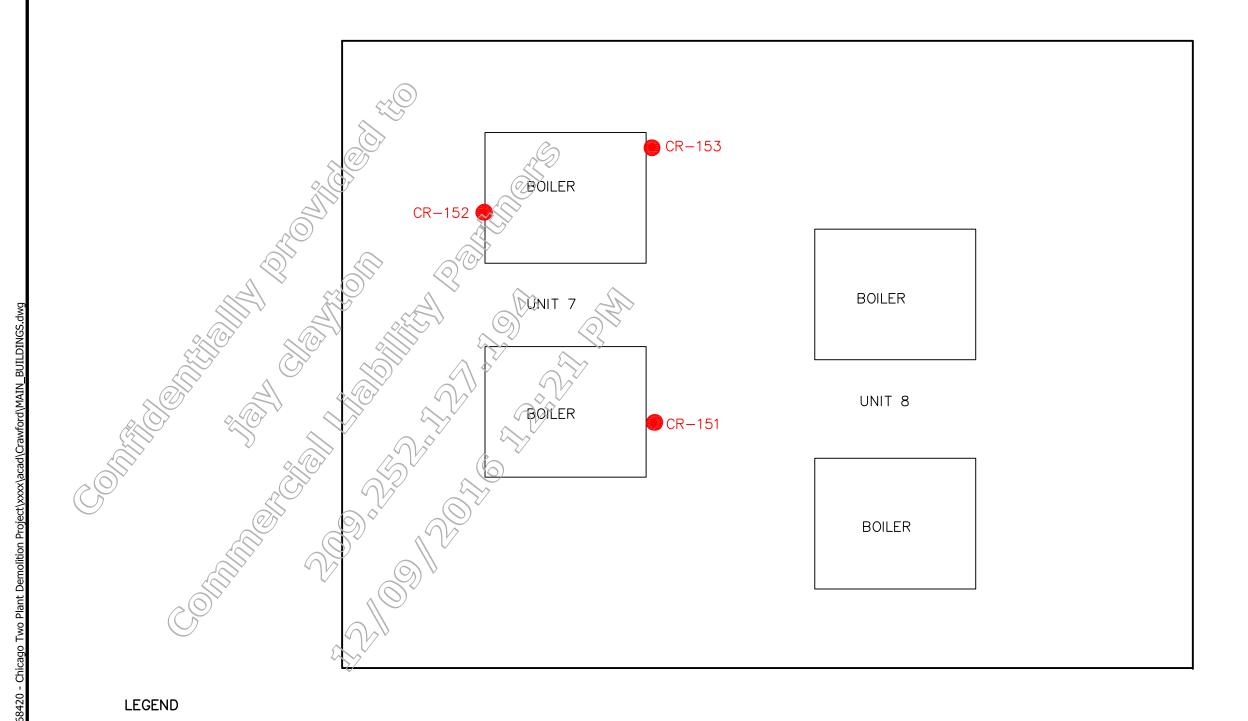
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ASBESTOS SAMPLE LOCATION MAP BOILER HOUSE - LEVEL 6 (138' 6")



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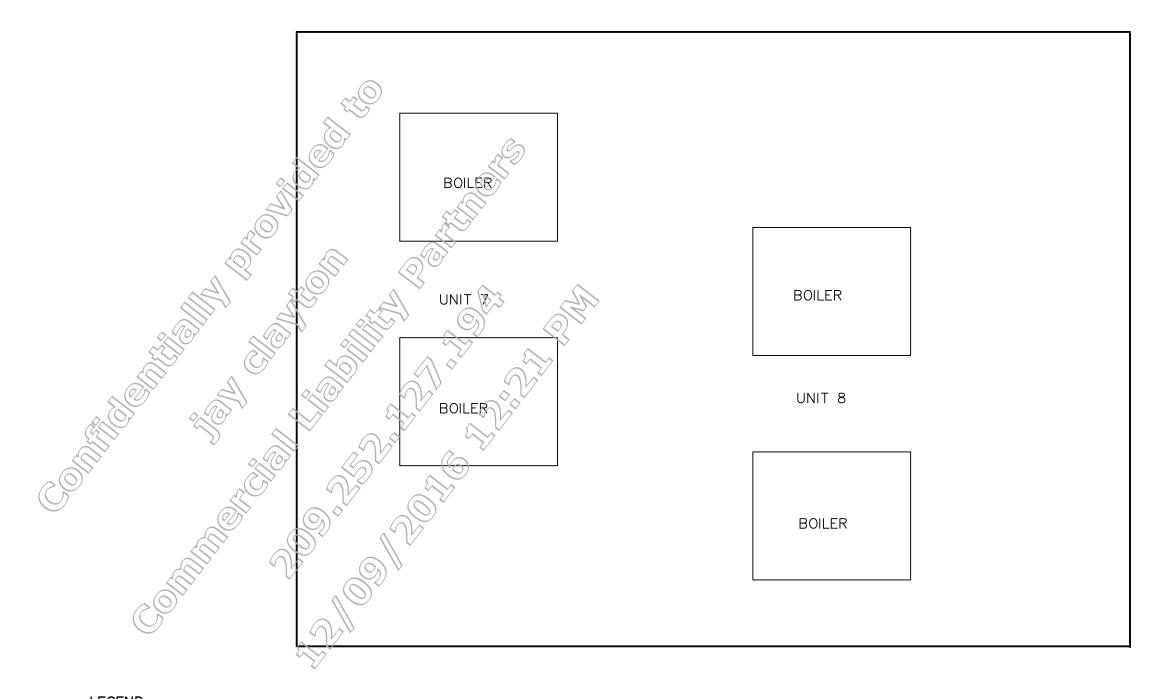
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MIDWEST GENERATION - CRAWFORD	CHK'D MB
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Environmental Resources Management	FIGURE 7

ASBESTOS SAMPLE LOCATION MAP BOILER HOUSE - LEVEL 7 (147')



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LEGEND

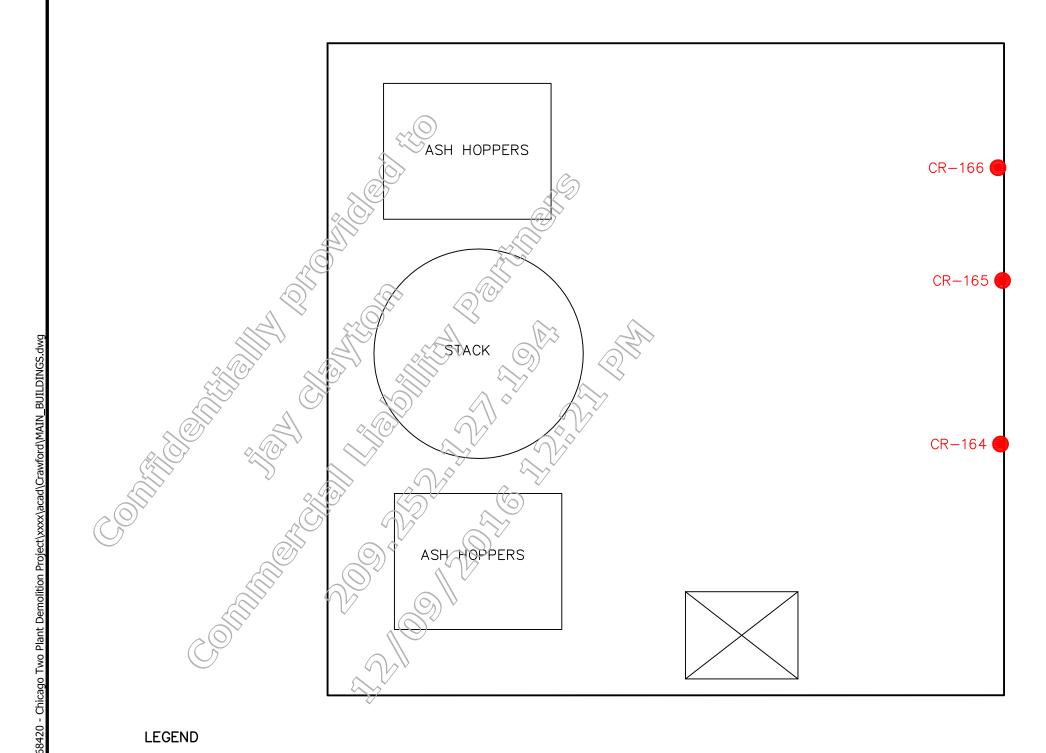
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MIDWEST GENERATION - CRAWFORD	CHK'D MB
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Environmental Resources Management	FIGURE 8

ASBESTOS SAMPLE LOCATION MAP BOILER HOUSE - LEVEL 8 (180')





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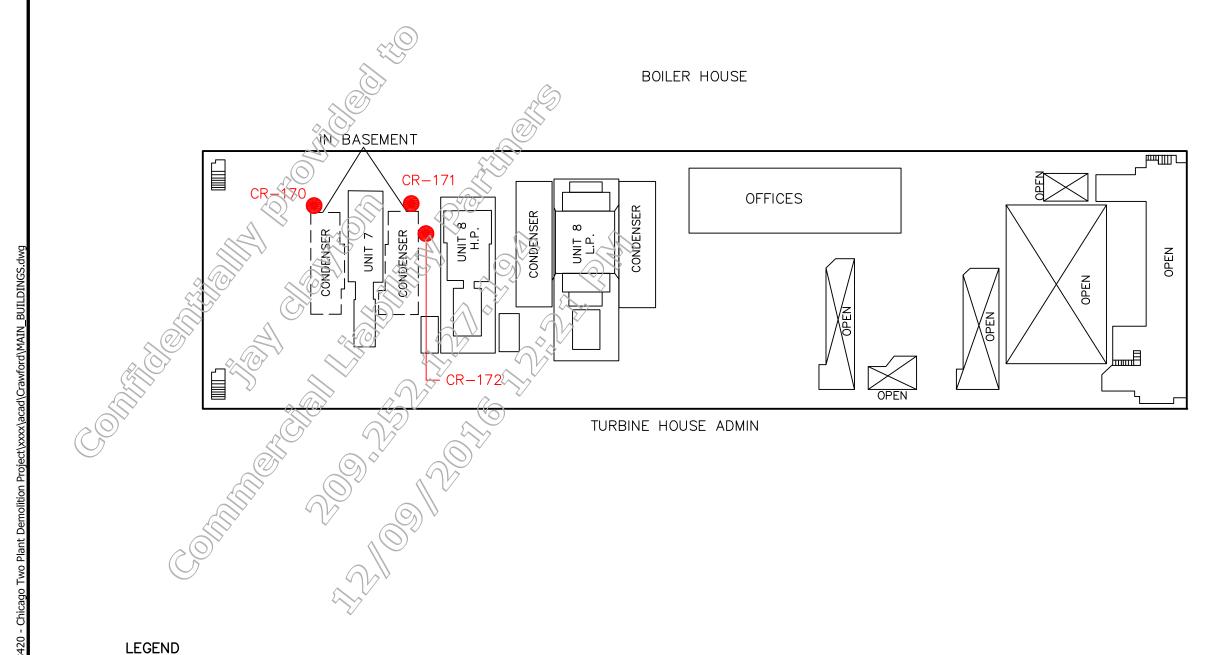
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MIDWEST GENERATION - CRAWFORD	CHK'D MB
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Environmental Resources Management	FIGURE 9

ASBESTOS SAMPLE LOCATION MAP TURBINE HOUSE





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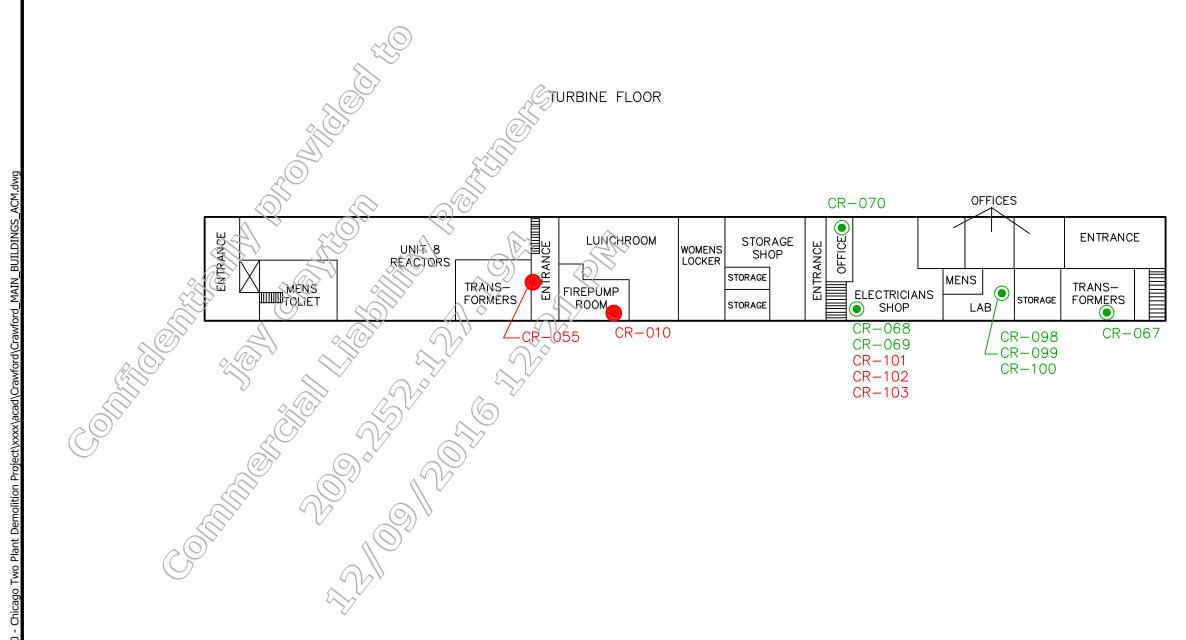
CR−226 CONFIRMED ASBESTOS SAMPLE LOCATION

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7/8/12



MIDWEST GENERATION - CRAWFORD	CHK'D MB
3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS	0168420
Environmental Resources Management	FIGURE 10

ASBESTOS SAMPLE LOCATION MAP TURBINE HOUSE ADMIN - FIRST FLOOR





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LEGEND

CR-226 NON-ASBESTOS SAMPLE LOCATION

CR−217 CONFIRMED ASBESTOS SAMPLE LOCATION

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CADD Review RMK	
Date Drawn/Rev'd 7/8/12	ERM

MIDWEST	GENERATION -	CRAWFORD
	7EO1 COLITH DILLACKI AVENUE	

3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS

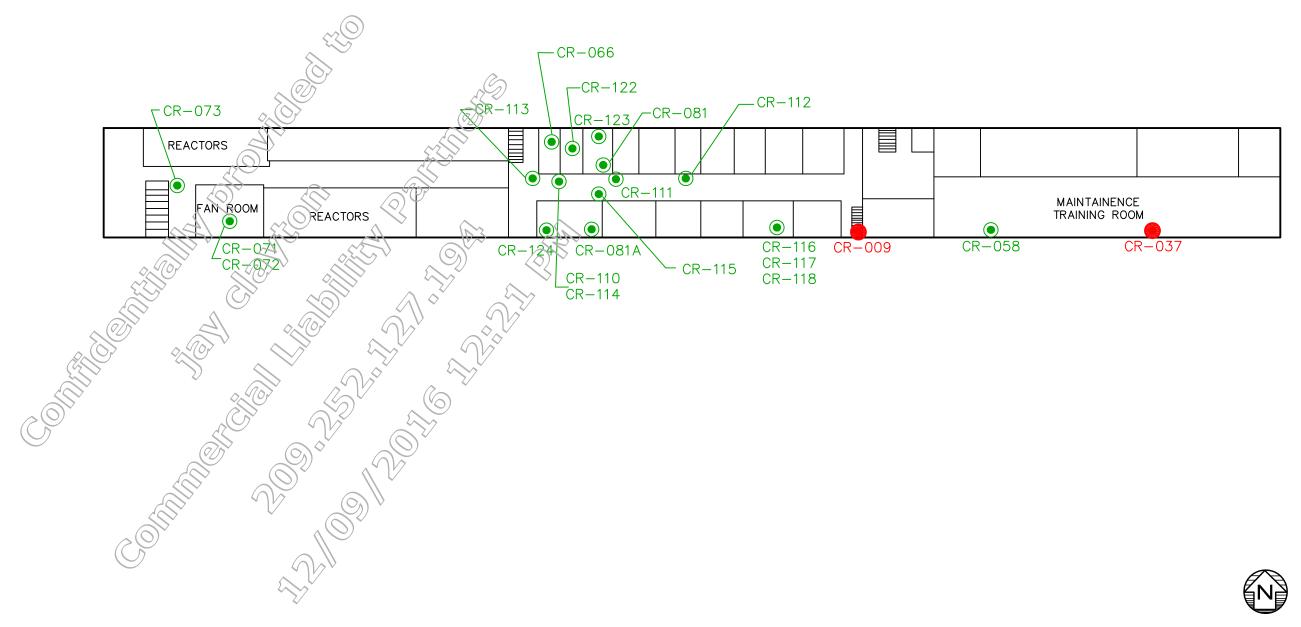
Environmental Resources Management

MID
0168420

CHK'D

FIGURE 11

ASBESTOS SAMPLE LOCATION MAP TURBINE BUILDING ADMIN — SECOND FLOOR



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CR-220 • NON-ASBESTOS SAMPLE LOCATION

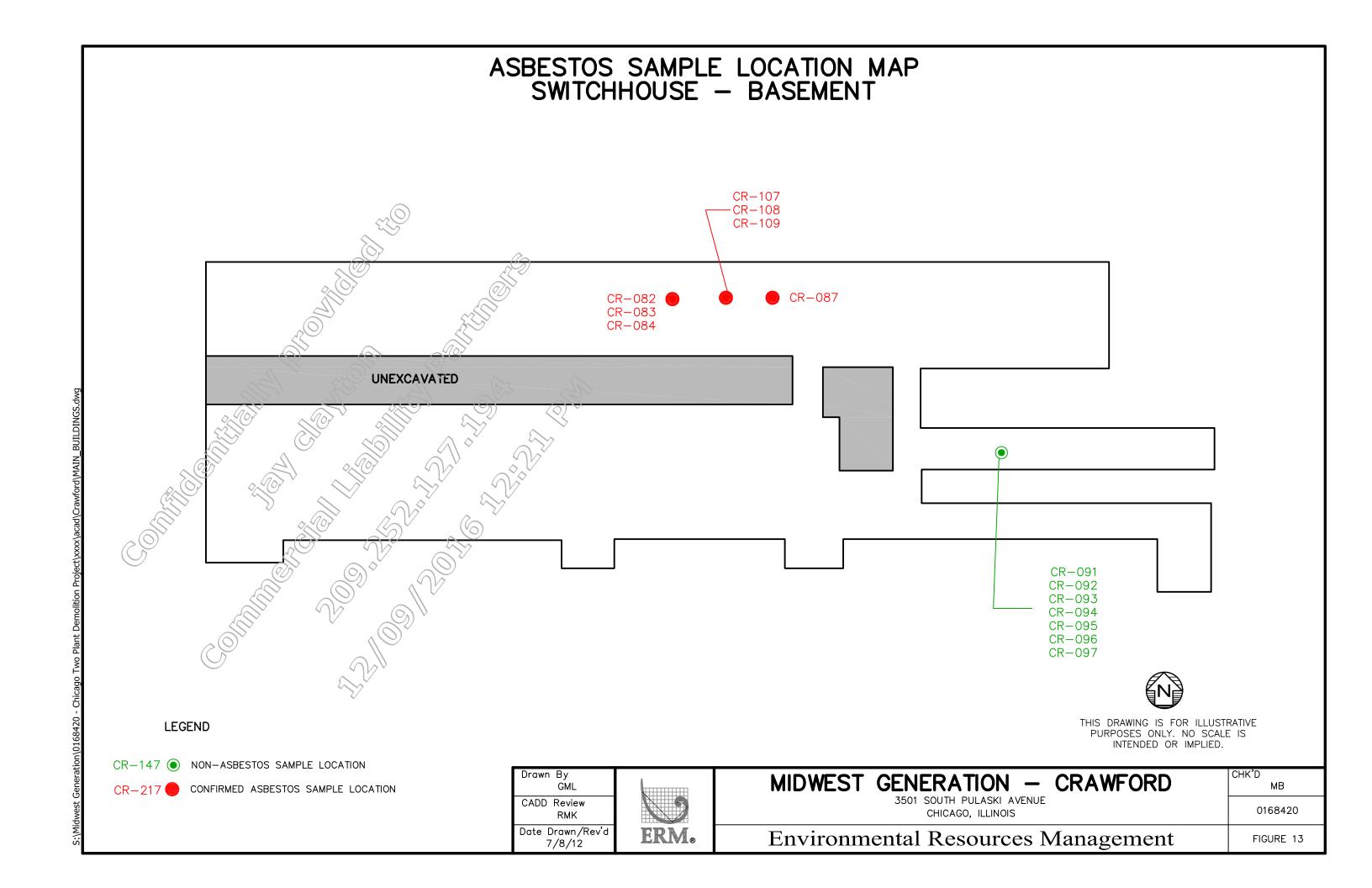
CR-217 • CONFIRMED ASBESTOS SAMPLE LOCATION

LEGEND

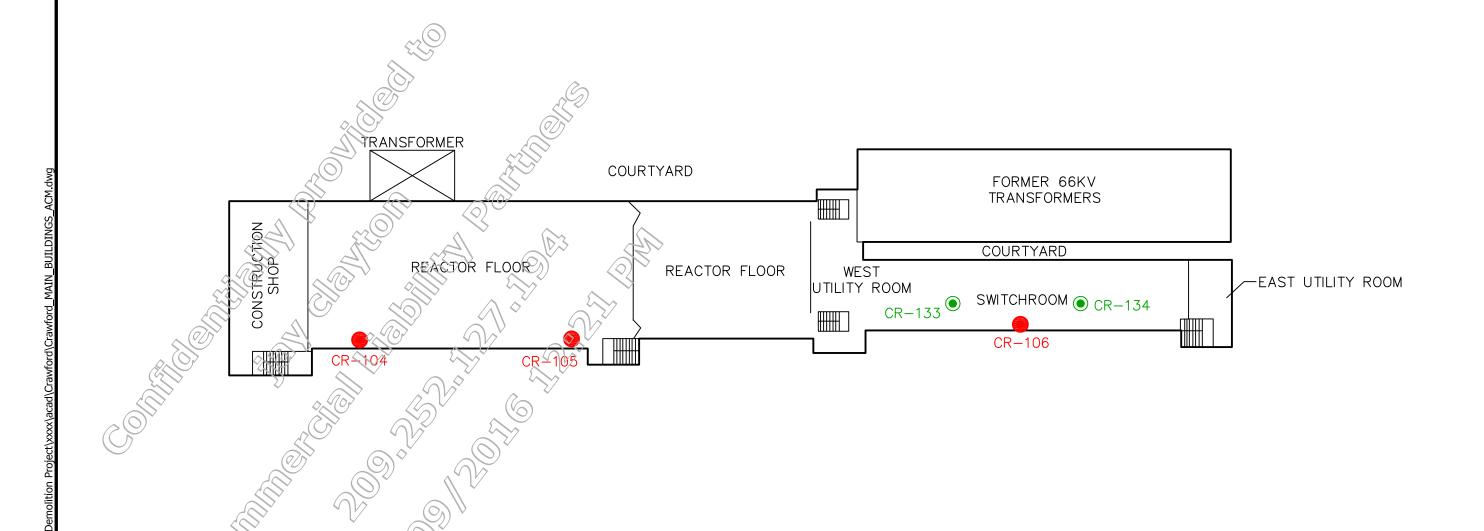
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MIDWEST GENERATION - CRAWFORD	CHK'D MB
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Environmental Resources Management	FIGURE 12



ASBESTOS SAMPLE LOCATION MAP SWITCHHOUSE - FIRST FLOOR





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LEGEND

CR−147 ● NON-ASBESTOS SAMPLE LOCATION

CR-217 CONFIRMED ASBESTOS SAMPLE LOCATION

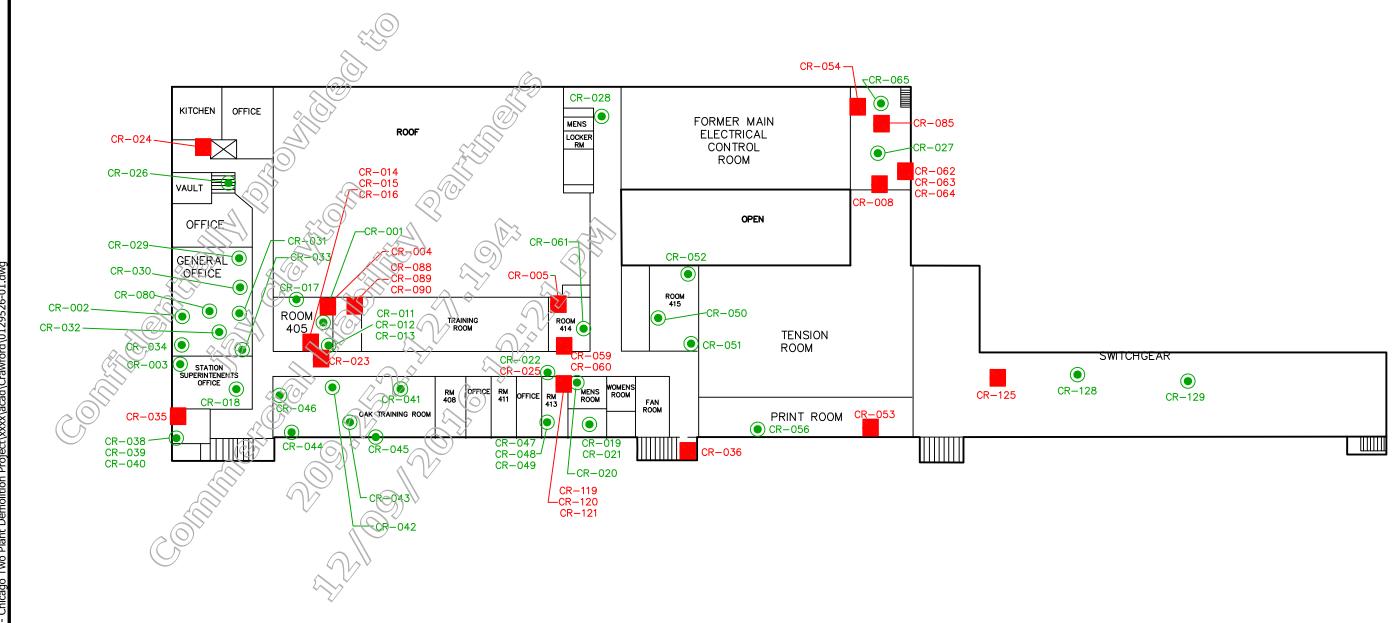
Drawn By GML	
CADD Review RMK	
Date Drawn/Rev'd 7/8/12	

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Environmental Resources Management	FIGURE 14

ASBESTOS SAMPLE LOCATION MAP SWITCHHOUSE - THIRD FLOOR OFFICE SWITCHGEAR ⊙ CR-131 SWITCHGEAR CR-130 CR-127 CR-126 ●CR-132 CR-057 CR-006 THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED. **LEGEND** CR−220 ● NON-ASBESTOS SAMPLE LOCATION Drawn By MIDWEST GENERATION -**CRAWFORD** CR−217 CONFIRMED ASBESTOS SAMPLE LOCATION GML 3501 SOUTH PULASKI AVENUE CADD Review 0168420 CHICAGO, ILLINOIS Date Drawn/Rev'd 7/11/12 **ERM**® Environmental Resources Management FIGURE 15

ASBESTOS SAMPLE LOCATION MAP SWITCHHOUSE — FOURTH FLOOR



LEGEND

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MB

CHK'D

CR−024 ● NON-ASBESTOS SAMPLE LOCATION

CR−024 CONFIRMED ASBESTOS SAMPLE LOCATION

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	7504 COLITIL DIN ACIZI AMENINE	

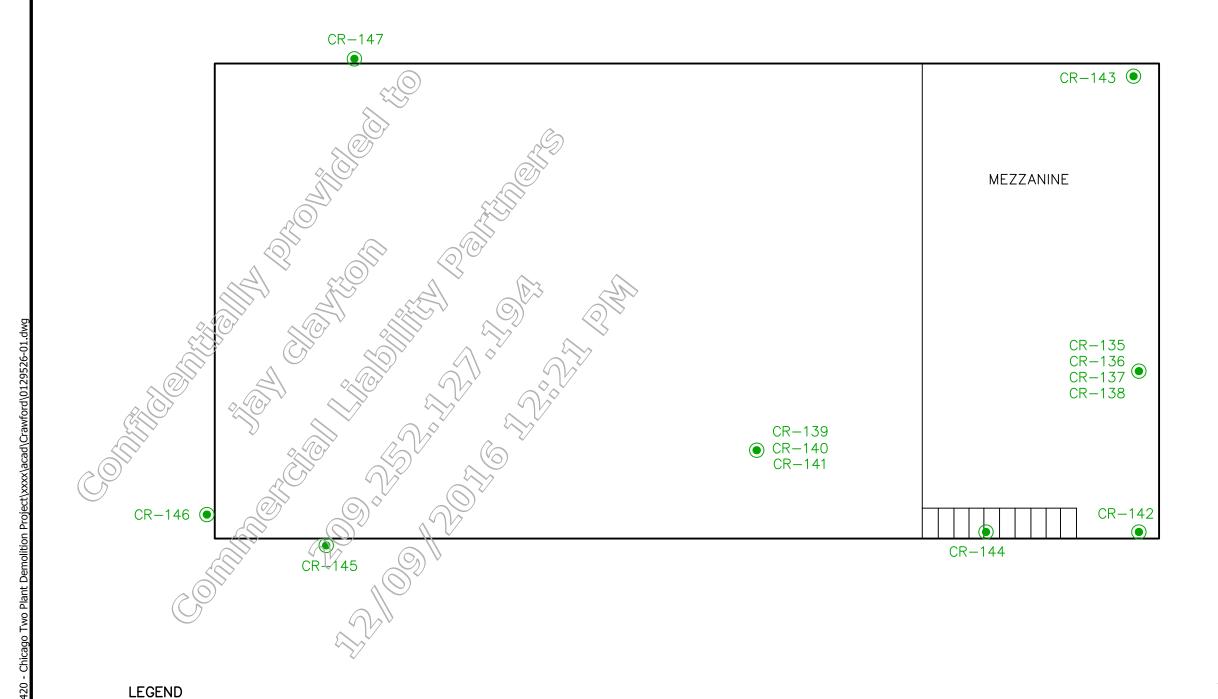
3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS

o, ILLINOIS 0168420

Sources Management FIGURE 16

Environmental Resources Management

ASBESTOS SAMPLE LOCATION MAP CRAWFORD — CRIBHOUSE





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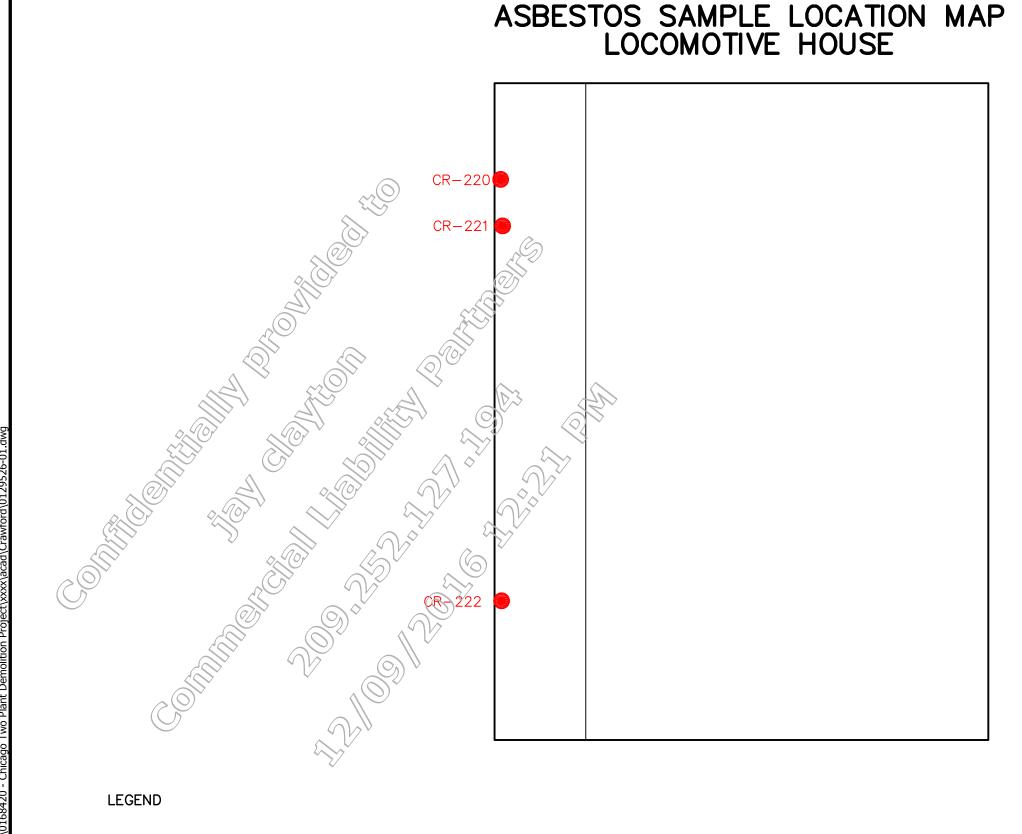
CR−147

NON-ASBESTOS SAMPLE LOCATION

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Environmental Resources Management	FIGURE 17





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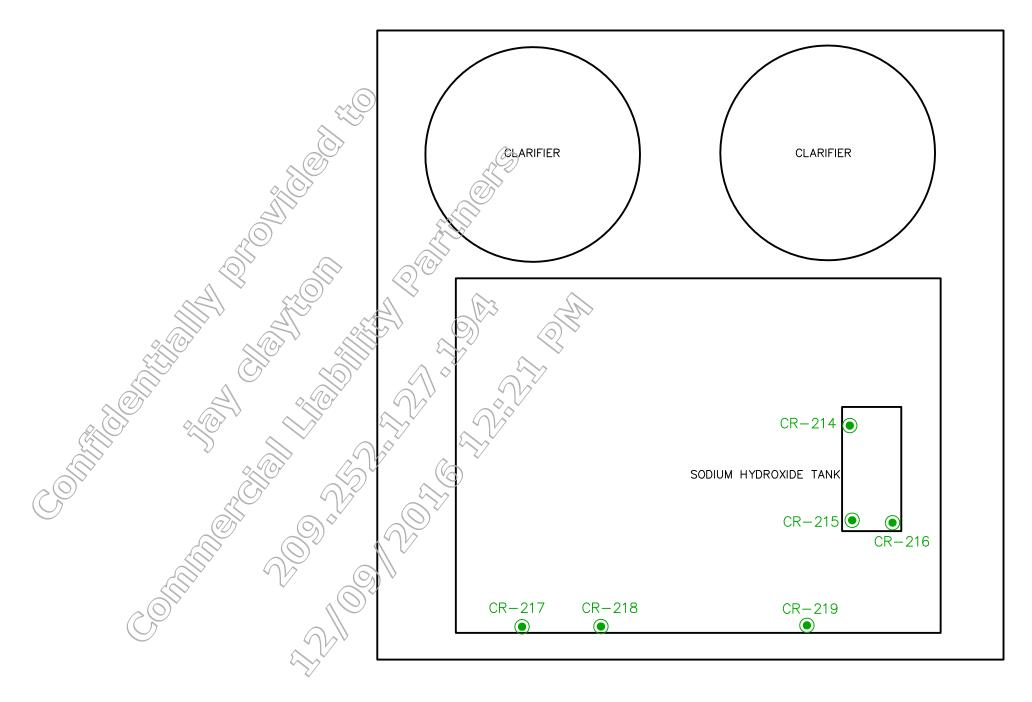
CR-220 CONFIRMED ASBESTOS SAMPLE LOCATION

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ASBESTOS SAMPLE LOCATION MAP WASTEWATER TREATMENT PLANT





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LEGEND

CR-217 NON-ASBESTOS SAMPLE LOCATION

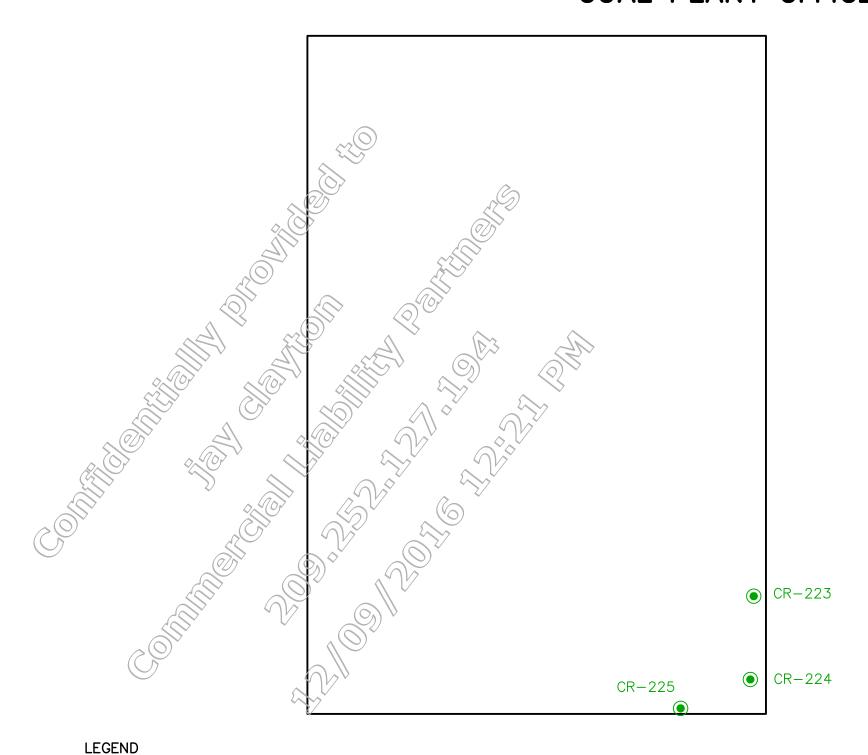
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GML	
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RMK	
Date Drawn/Rev'd	
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Environmental Resources Management FIGURE 19

ASBESTOS SAMPLE LOCATION MAP COAL PLANT OFFICE





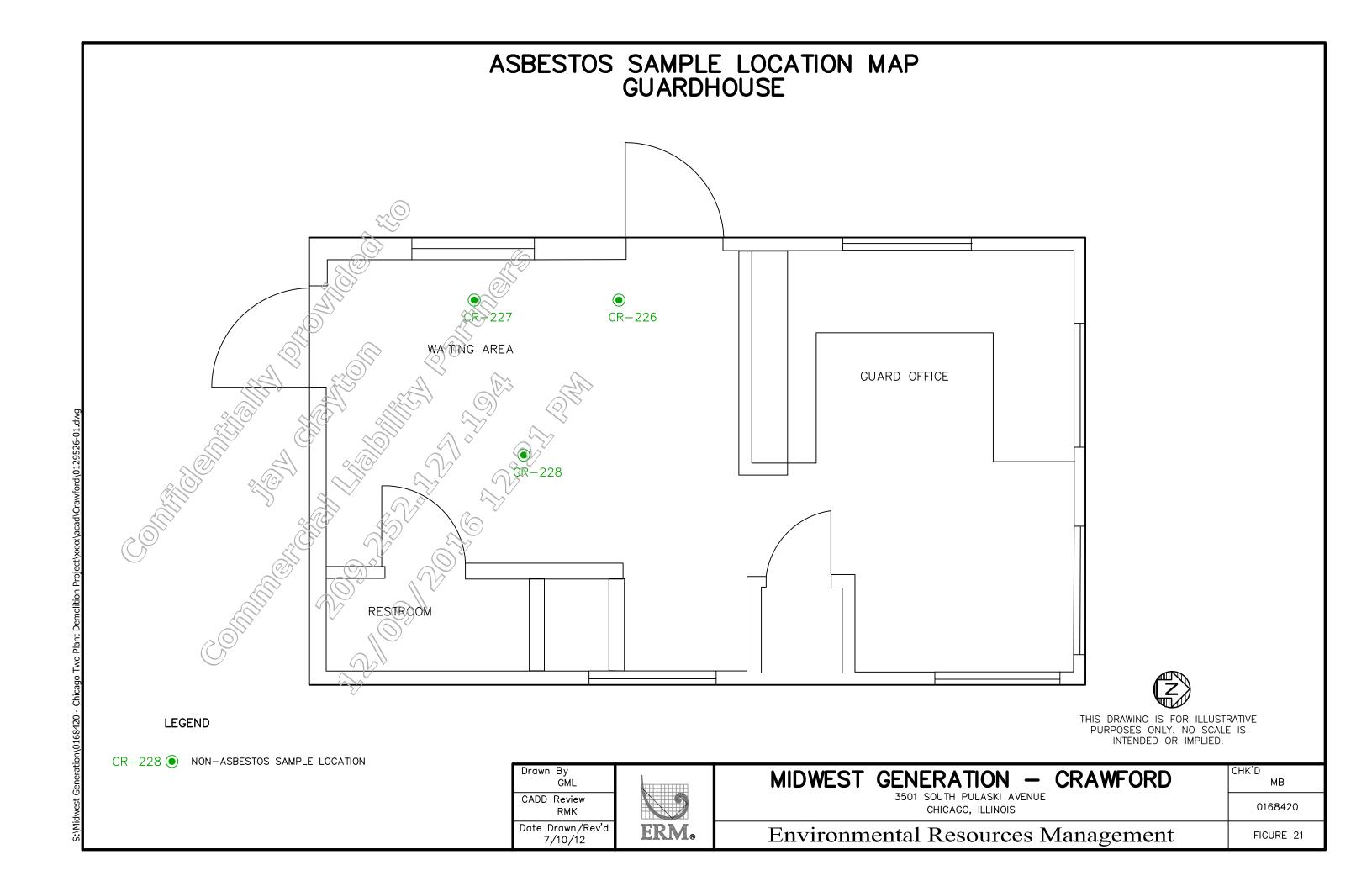
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CR-226 ● NON-ASBESTOS SAMPLE LOCATION

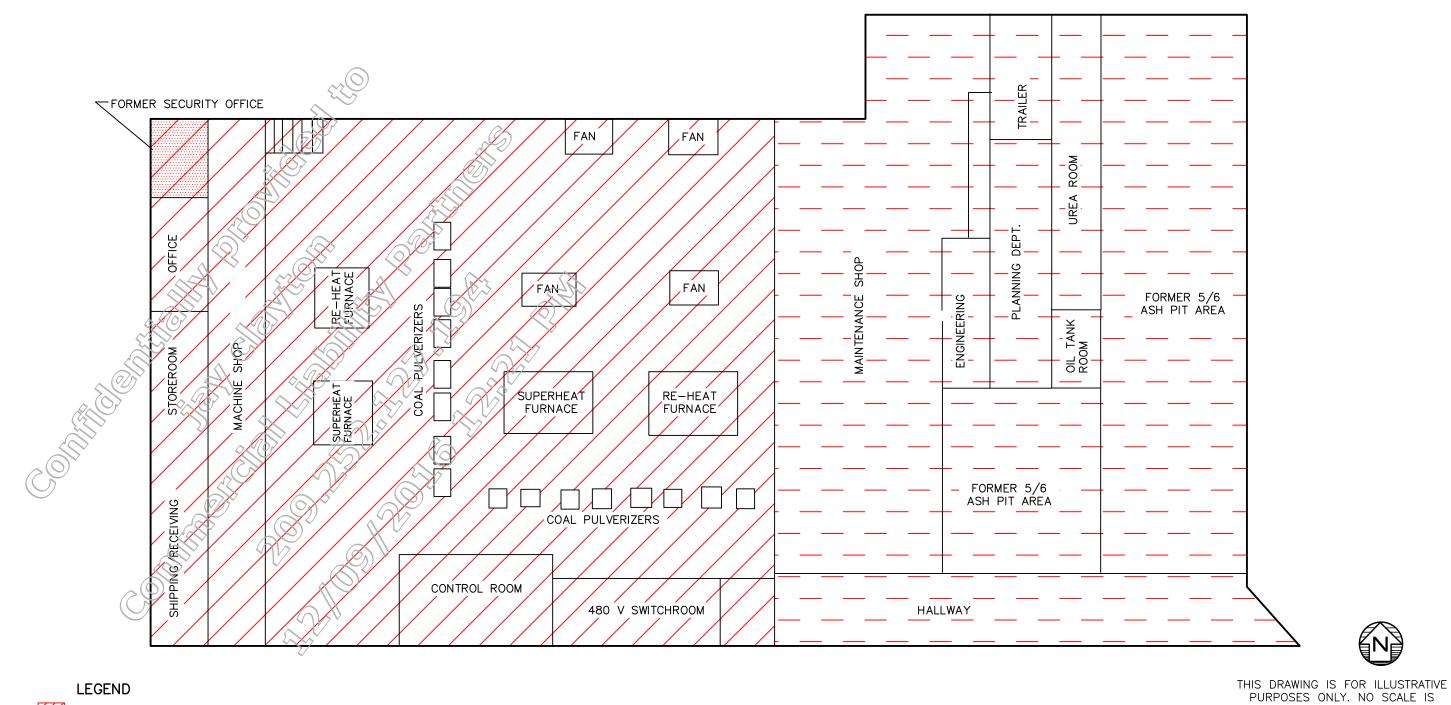
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GML	ı
CADD Review	
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	L



MIDWEST GENERATION - CRAWFORD	CHK'D MB	
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Environmental Resources Management	FIGURE 20	



CONFIRMED ASBESTOS LOCATION MAP BOILER HOUSE - LEVEL 1 (10')





LEGEND

7/8 BOILERS AND THERMAL SYSTEM INSULATION



5/6 BOILERS AND THERMAL SYSTEM INSULATION (MATERIAL 45) Drawn By



BLACK MASTIC UNDER FLOOR TILE (MATERIAL 59)

NOTE: GALBESTOS, WINDOW GLAZING AND CAULK, GASKET LOCATIONS NOT SHOWN

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CHICAGO, ILLINOIS

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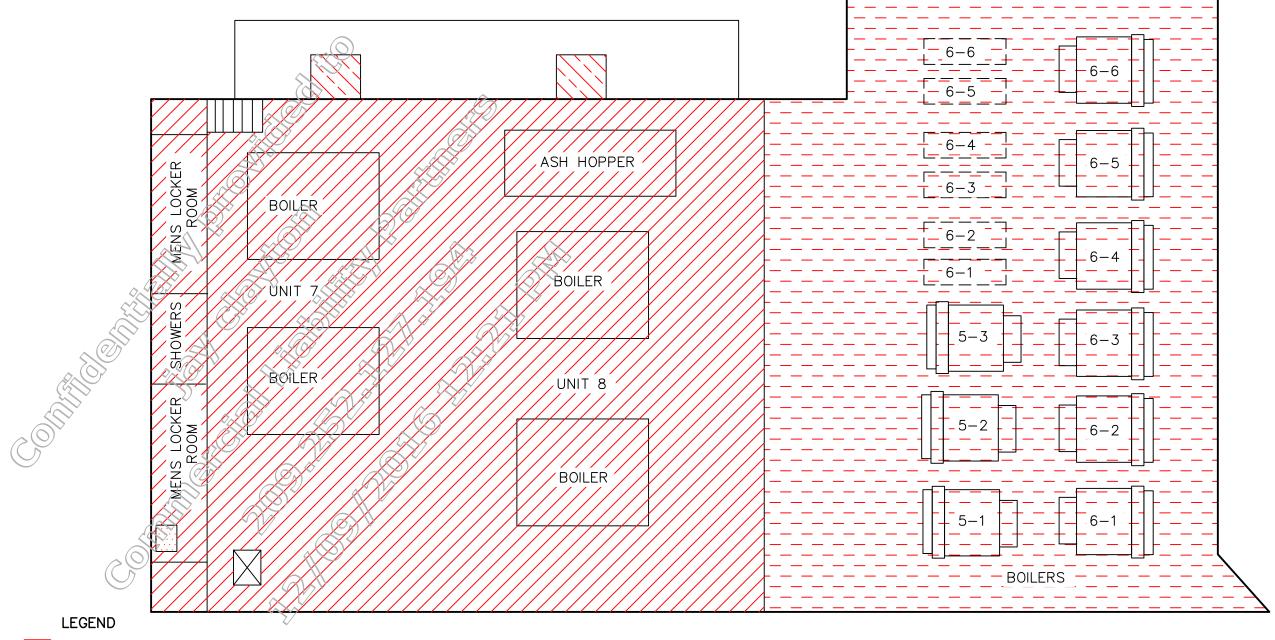
INTENDED OR IMPLIED.

Environmental Resources Management

MB

FIGURE 22

CONFIRMED ASBESTOS LOCATION MAP BOILER HOUSE - LEVEL 2 (41')



7/8 BOILERS AND THERMAL SYSTEM INSULATION

5/6 BOILERS AND THERMAL SYSTEM INSULATION (MATERIAL 45)



DUCT INSULATION (MATERIAL 55)



TRANSITE WALL PANELS (MATERIAL 52)

NOTE: GALBESTOS, WINDOW GLAZING AND CAULK, GASKET LOCATIONS NOT SHOWN

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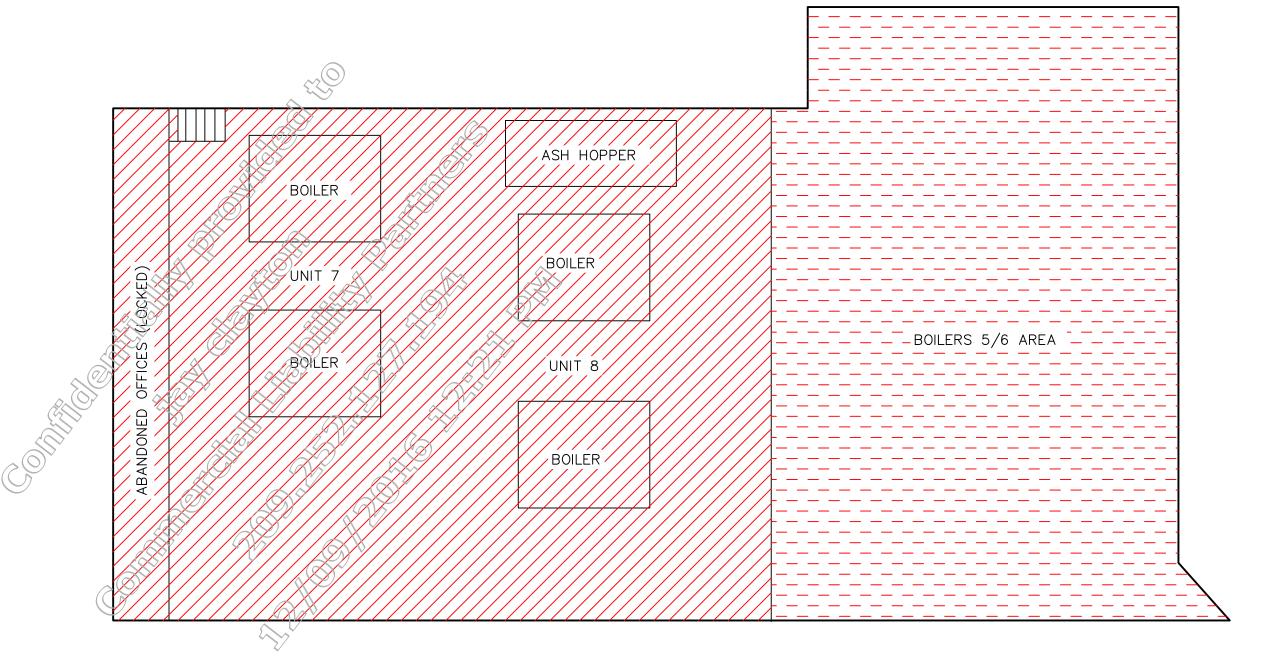
FIGURE 23

MB



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CONFIRMED ASBESTOS LOCATION MAP BOILER HOUSE - LEVEL 3 (70' 6")



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LEGEND

7/8 BOILERS, ASH HOPPERS AND THERMAL SYSTEM INSULATION

5/6 BOILERS AND THERMAL SYSTEM INSULATION (MATERIAL 45)

NOTE: GALBESTOS, WINDOW GLAZING AND CAULK, GASKET LOCATIONS NOT SHOWN





MIDWEST	GENERATION - CI	RAWFORD
	3501 SOUTH PULASKI AVENUE	

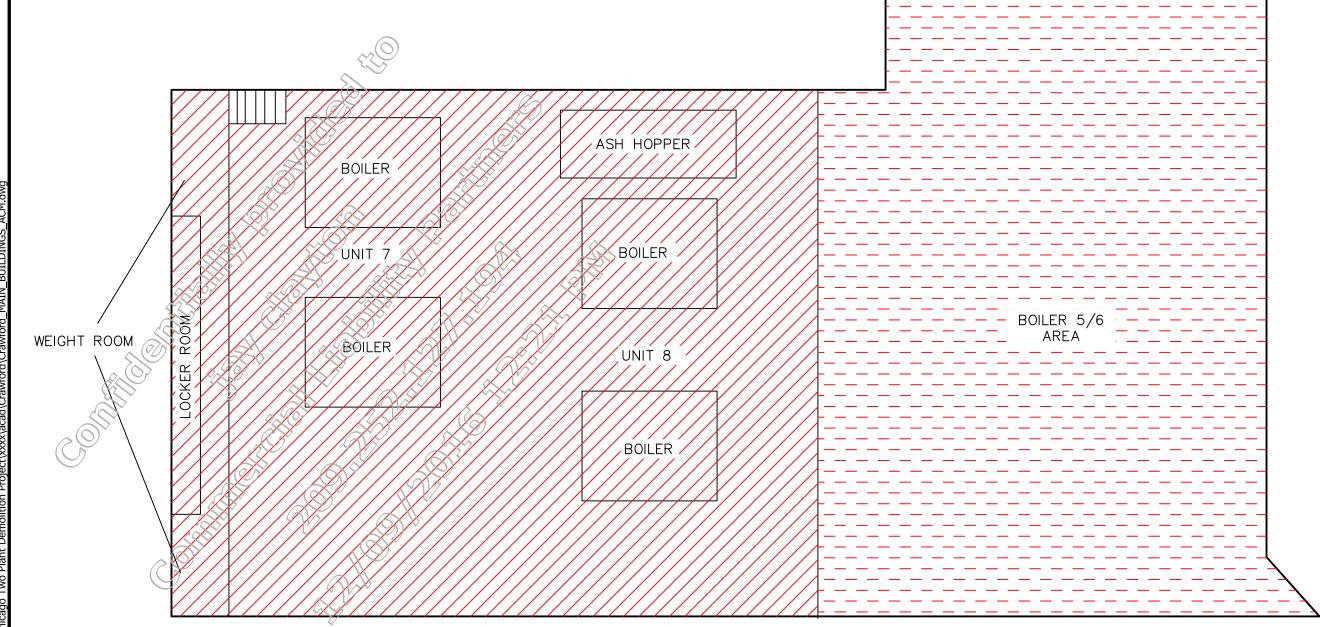
CHICAGO, ILLINOIS

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FIGURE 24

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CONFIRMED ASBESTOS LOCATION MAP BOILER HOUSE - LEVEL 4 (88' 6")





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LEGEND

7/8 BOILERS, ASH HOPPER AND THERMAL SYSTEM INSULATION

<u>--</u>-

5/6 BOILERS AND THERMAL SYSTEM INSULATION (MATERIAL 45)

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3501 SOUTH PULASKI AVENUE CHICAGO, ILLINOIS

MB 0168420

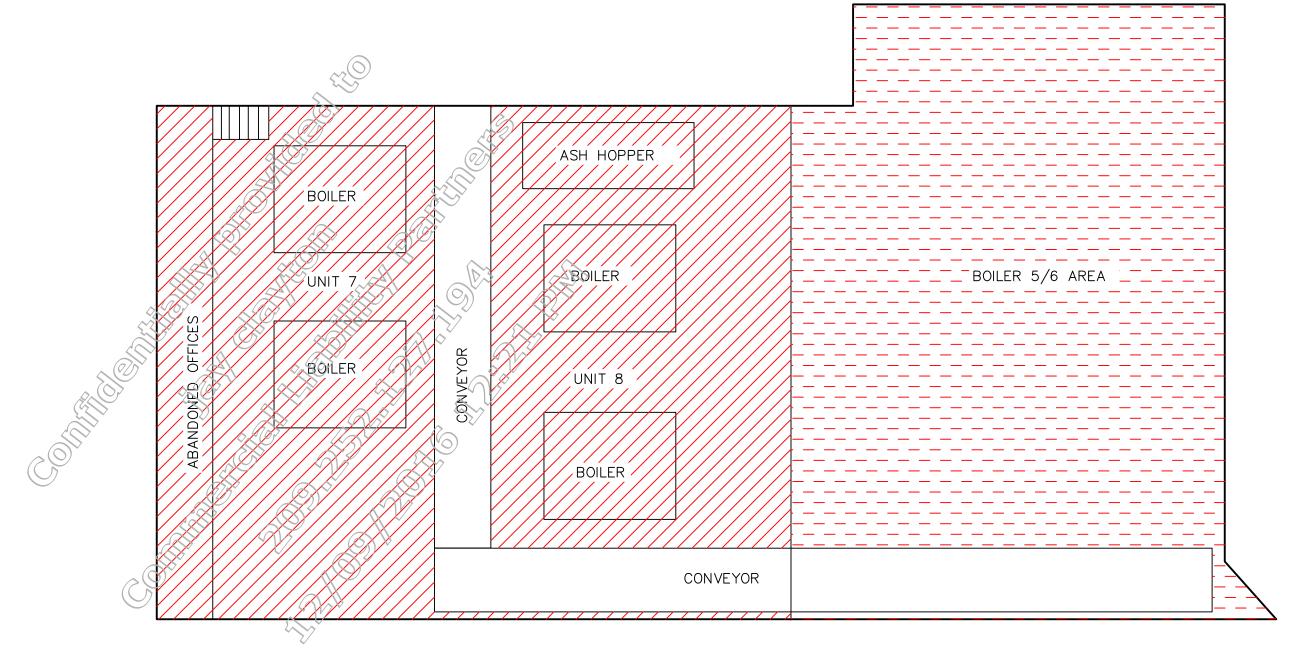
Environmental Resources Management

FIGURE 25

5:\Midwest Generation\0168420 - Chicago Two

NOTE: GALBESTOS, WINDOW GLAZING AND CAULK, GASKET LOCATIONS NOT SHOWN

CONFIRMED ASBESTOS LOCATION MAP BOILER HOUSE - LEVEL 5 (106')



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LEGEND

7/8 BOILERS, ASH HOPPERS AND THERMAL SYSTEM INSULATION

5/6 BOILERS AND THERMAL SYSTEM INSULATION (MATERIAL 45)

NOTE: GALBESTOS, WINDOW GLAZING AND CAULK, GASKET LOCATIONS NOT SHOWN

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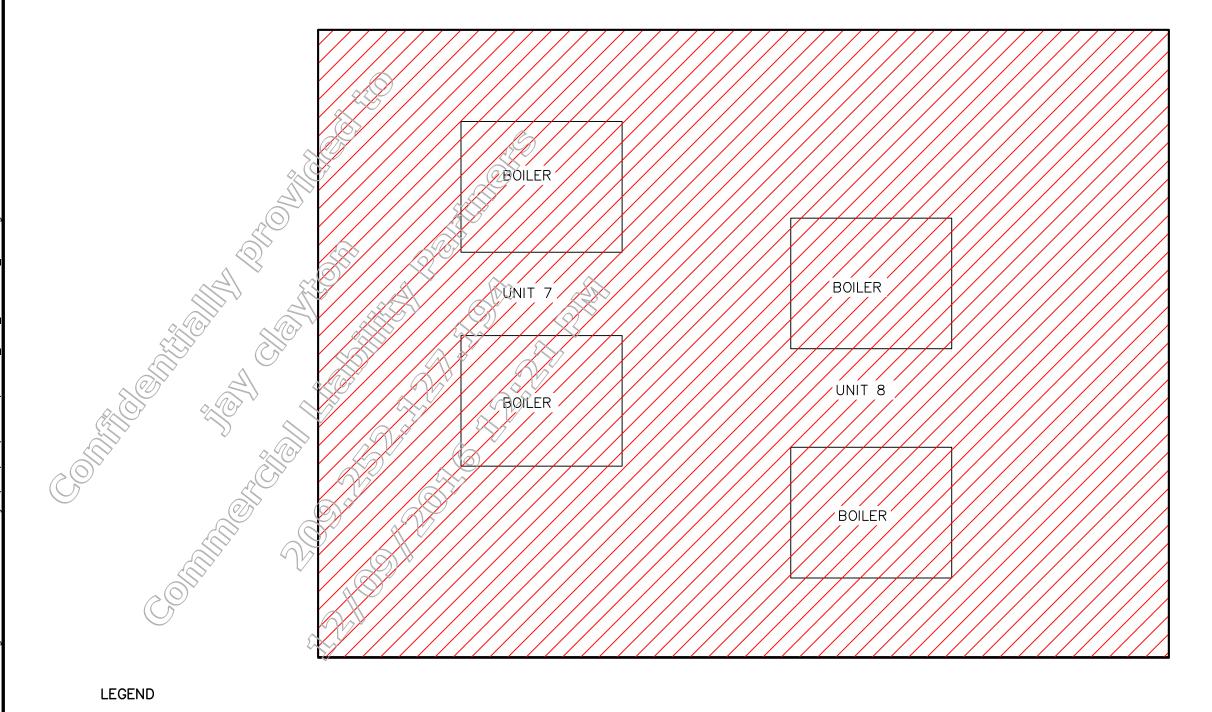
MIDWEST GENERATION - CRAWFORD 3501 SOUTH PULASKI AVENUE

CHICAGO, ILLINOIS

0168420 FIGURE 26

Environmental Resources Management

CONFIRMED ASBESTOS LOCATION MAP BOILER HOUSE - LEVEL 6 (138' 6")





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7/8 BOILERS AND THERMAL SYSTEM INSULATION

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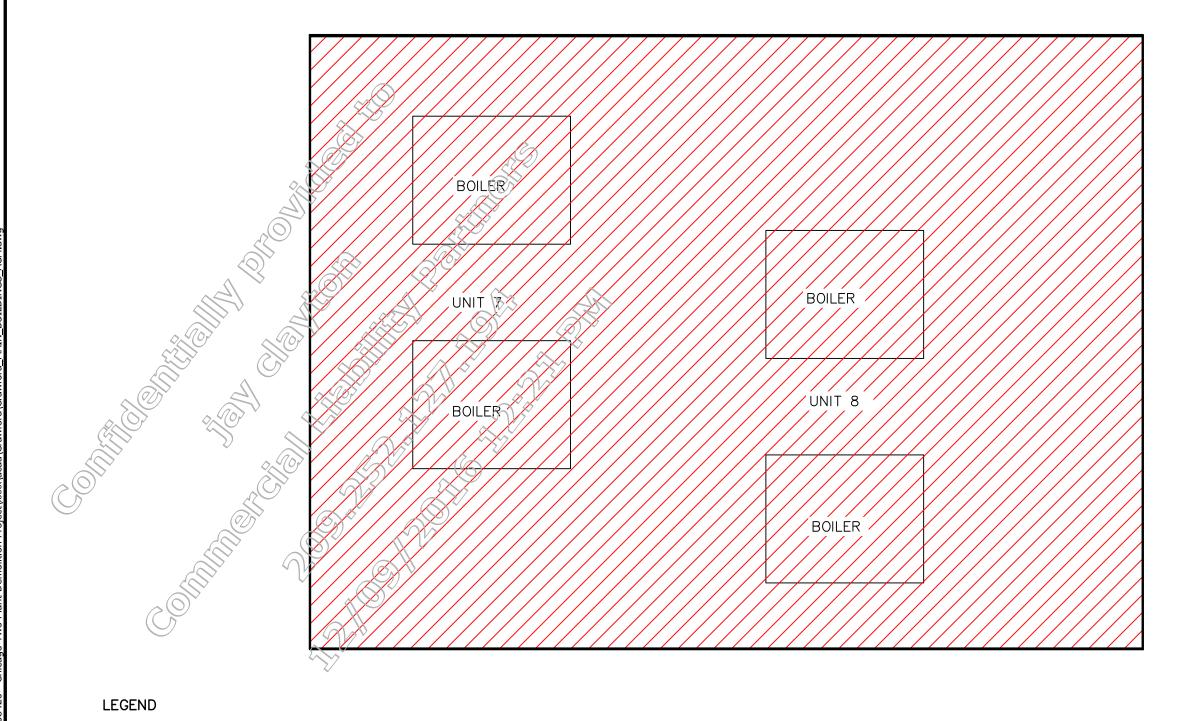
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Environmental Resources Management	FIGURE 27

CONFIRMED ASBESTOS LOCATION MAP BOILER HOUSE - LEVEL 7 (147')



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7/8 BOILERS AND THERMAL SYSTEM INSULATION

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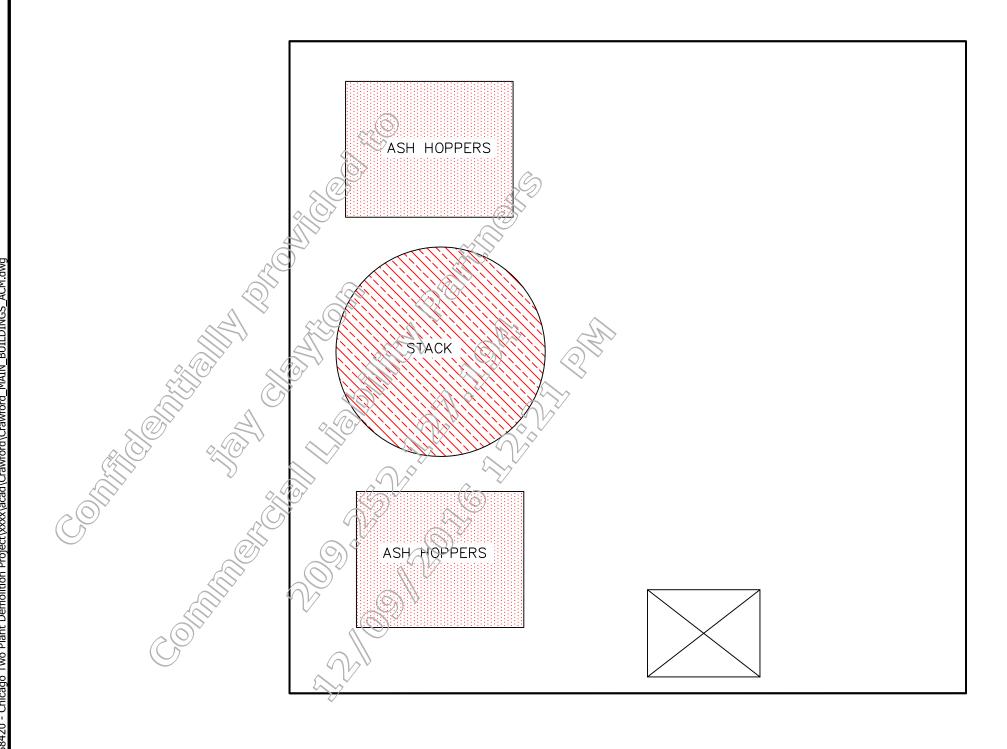
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Environmental Resources Management	FIGURE 28

CONFIRMED ASBESTOS LOCATION MAP BOILER HOUSE - LEVEL 8 (180')





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LEGEND

ASSUMED BOILER STACK INSULATION



ASH HOPPER INSULATION (MATERIAL 48)

NOTE: GALBESTOS, WINDOW GLAZING AND CAULK, GASKET LOCATIONS NOT SHOWN

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CHICAGO, ILLINOIS

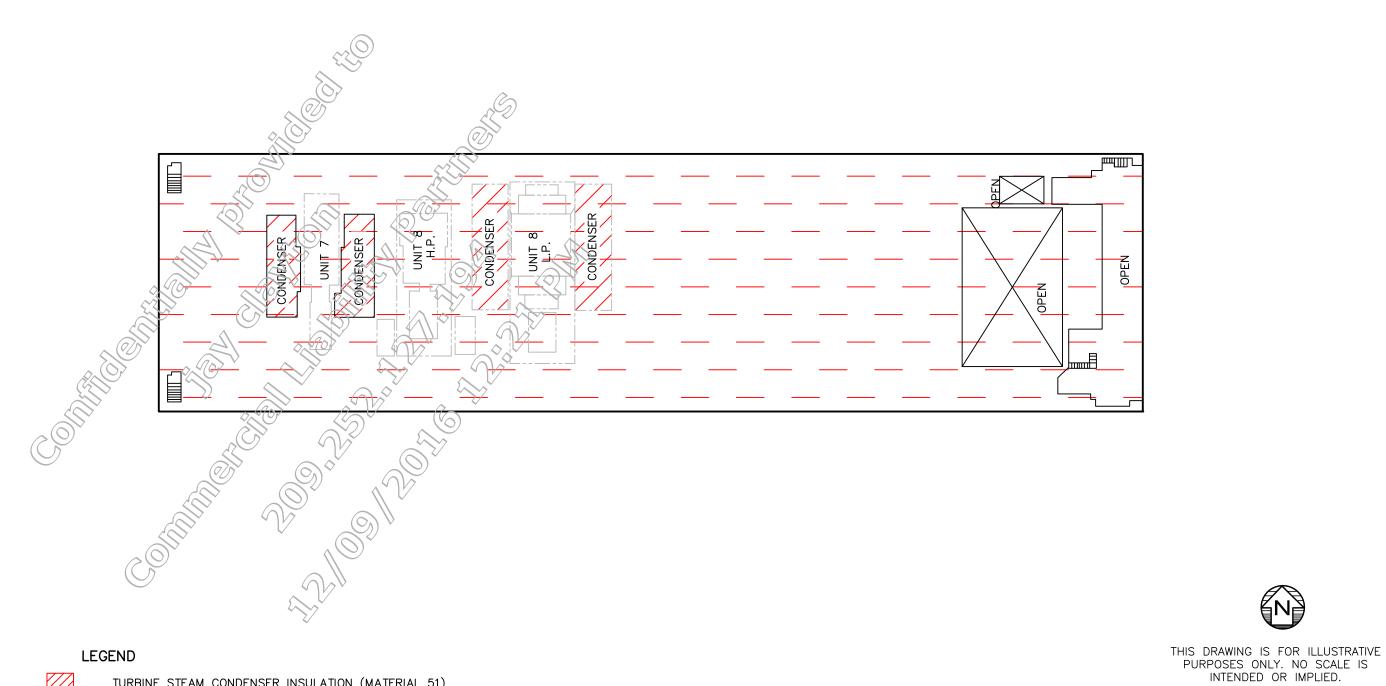
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Environmental Resources Management

FIGURE 29

MB

CONFIRMED ASBESTOS LOCATION MAP TURBINE HOUSE — BASEMENT





LEGEND

TURBINE STEAM CONDENSER INSULATION (MATERIAL 51)



THERMAL SYSTEM INSULATION

NOTE: GALBESTOS, WINDOW GLAZING AND CAULK, GASKET LOCATIONS NOT SHOWN

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CHICAGO, ILLINOIS

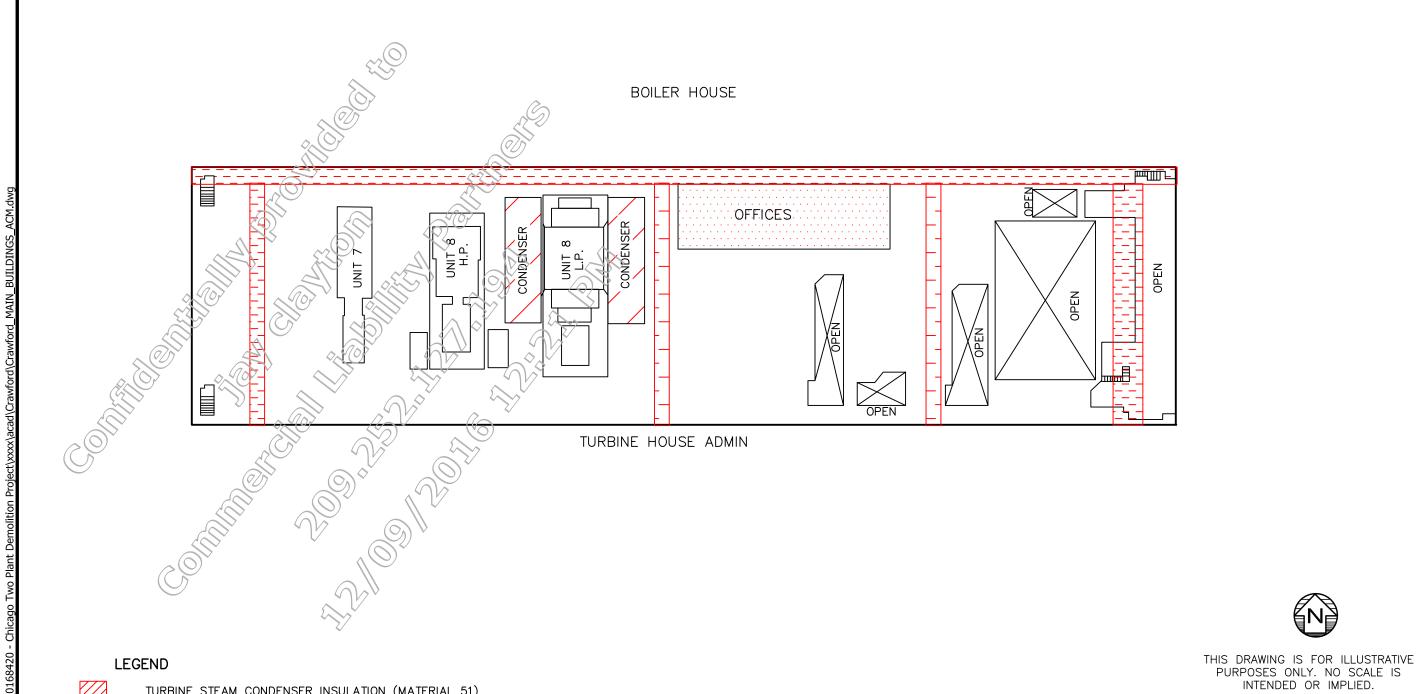
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Environmental Resources Management

FIGURE 30

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CONFIRMED ASBESTOS LOCATION MAP TURBINE HOUSE — FIRST FLOOR





LEGEND

TURBINE STEAM CONDENSER INSULATION (MATERIAL 51)



THERMAL SYSTEM INSULATION



ASSUMED FLOOR TILE

NOTE: GALBESTOS, WINDOW GLAZING AND CAULK, GASKET LOCATIONS NOT SHOWN

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3501 SOUTH PULASKI AVENUE

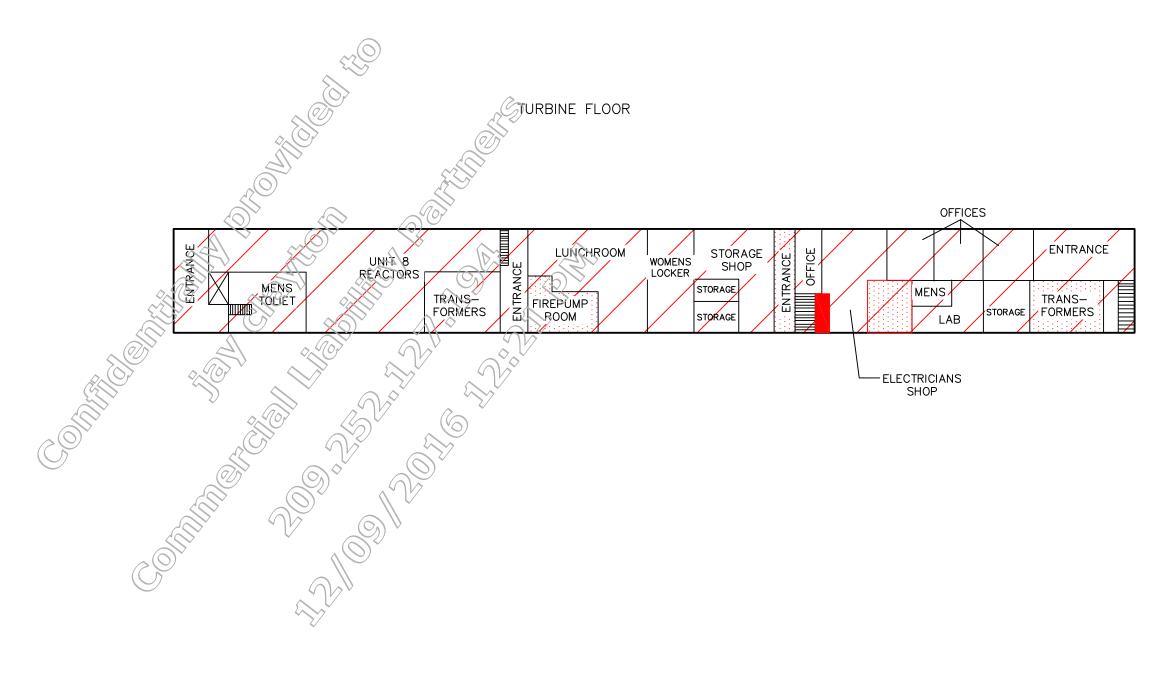
CHICAGO, ILLINOIS

0168420 FIGURE 31

CHK'D

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CONFIRMED ASBESTOS LOCATION MAP TURBINE HOUSE ADMIN — FIRST FLOOR





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LEGEND

PLASTER (MATERIAL 2)

1'X1' WHITE FLOOR TILE (MATERIAL 32)

THERMAL SYSTEM INSULATION (MATERIALS 11/17/27/28/34)

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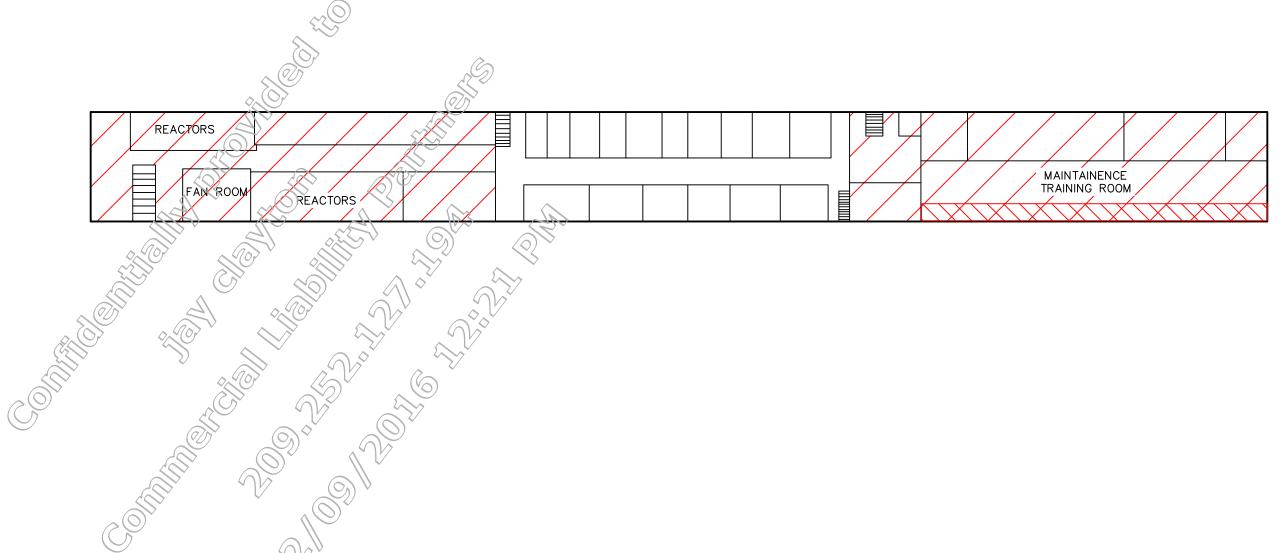
Environmental Resources Management

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FIGURE 32

:0 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\MAIN_BUILDINC

CONFIRMED ASBESTOS LOCATION MAP TURBINE BUILDING ADMIN — SECOND FLOOR



N

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LEGEND

PLASTER (MATERIAL 2)



THERMAL SYSTEM INSULATION (MATERIALS 11/17/27/28/34)

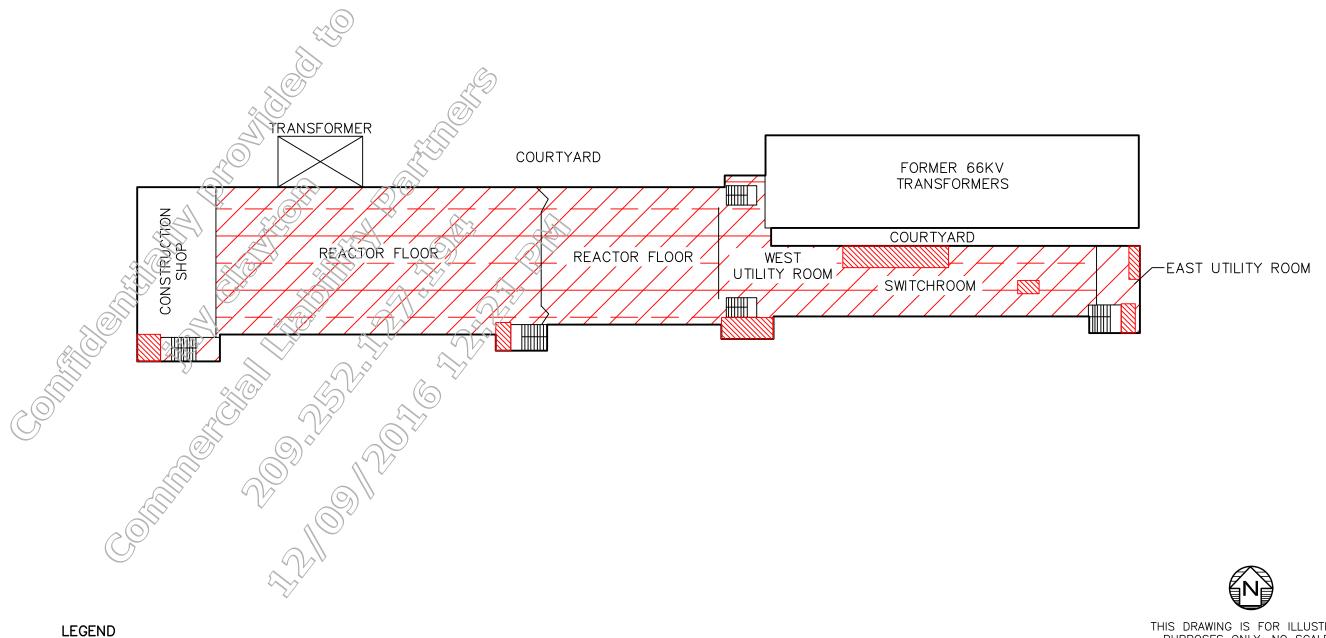
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Environmental Resources Management	FIGURE 33

CONFIRMED ASBESTOS LOCATION MAP SWITCHHOUSE — BASEMENT UNEXCAVATED THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. NO SCALE IS INTENDED OR IMPLIED. **LEGEND** THERMAL SYSTEM INSULATION Drawn By MIDWEST GENERATION - CRAWFORD TRANSITE (MATERIAL 40) GML 3501 SOUTH PULASKI AVENUE CADD Review 0168420 CHICAGO, ILLINOIS Date Drawn/Rev'd 7/8/12 **ERM**® Environmental Resources Management FIGURE 34

CONFIRMED ASBESTOS LOCATION MAP SWITCHHOUSE — FIRST FLOOR



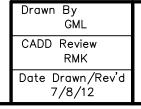
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PLASTER (MATERIAL 2)

THERMAL SYSTEM INSULATION (MATERIALS 11/17/27/28/34)



TRANSITE (MATERIAL 40)





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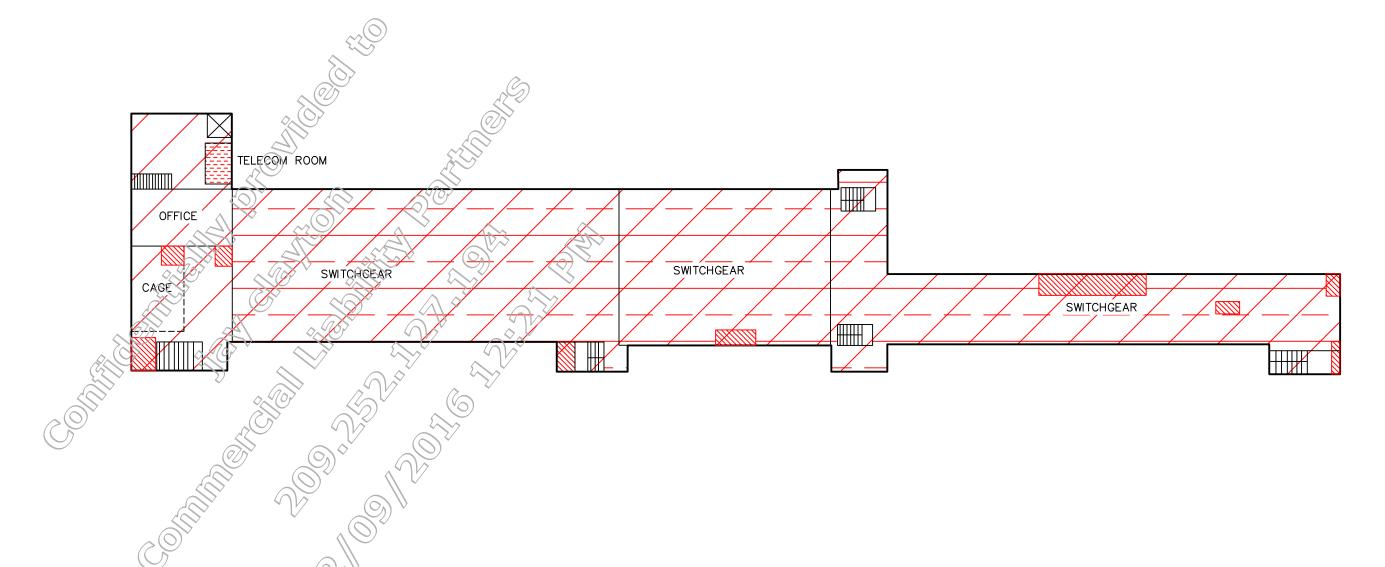
Environmental Resources Management

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FIGURE 35

CONFIRMED ASBESTOS LOCATION MAP SWITCHHOUSE — THIRD FLOOR





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LEGEND

PLASTER (MATERIAL 2)

THERMAL SYSTEM INSULATION (MATERIALS 11/17/27/28/34)



9"X9" GREEN AND GRAY FLOOR TILES (MATERIALS 24 AND 25) TRANSITE (MATERIAL 40) Drawn By
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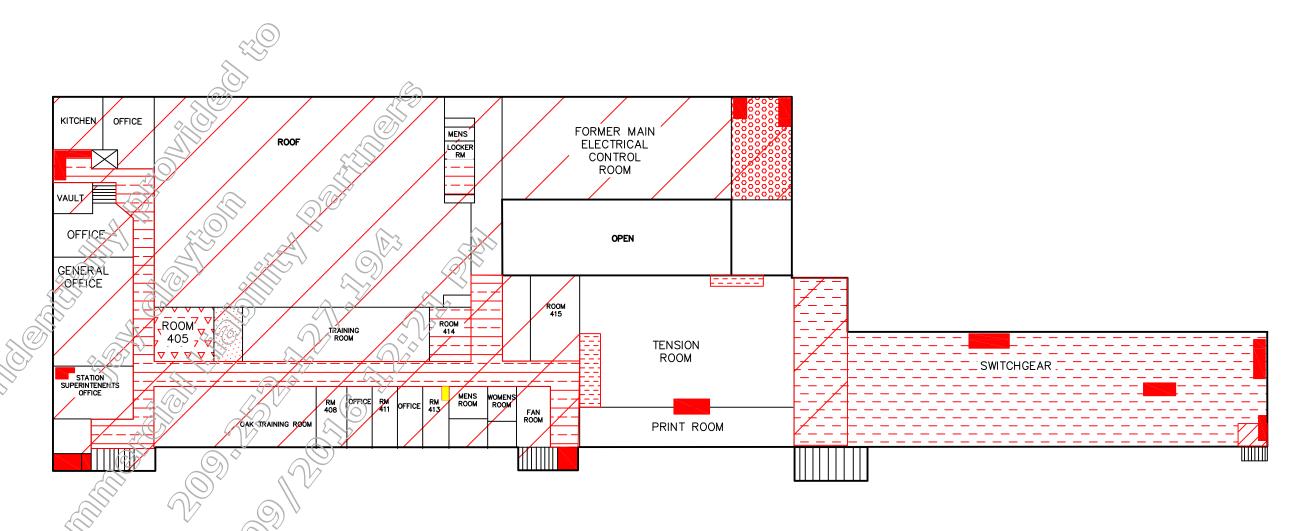
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Environmental Resources Management

MB 0168420

FIGURE 36

CONFIRMED ASBESTOS LOCATION MAP SWITCHHOUSE — FOURTH FLOOR



LEGEND

PLASTER (MATERIAL 2)

1'X1' GRAY FLOOR TILE (MATERIAL 7)
9"X9" BLACK FLOOR TILE (MATERIAL 4)

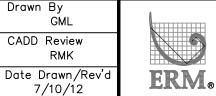
1'X1' DARK TAN FLOOR TILE (MATERIAL 29)

DUCT INSULATION (MATERIAL 20)

MAROON SHEET FLOORING (MATERIAL 38)

THERMAL SYSTEM INSULATION (MATERIALS 11/17/27/28/34)

TRANSITE (MATERIAL 40)

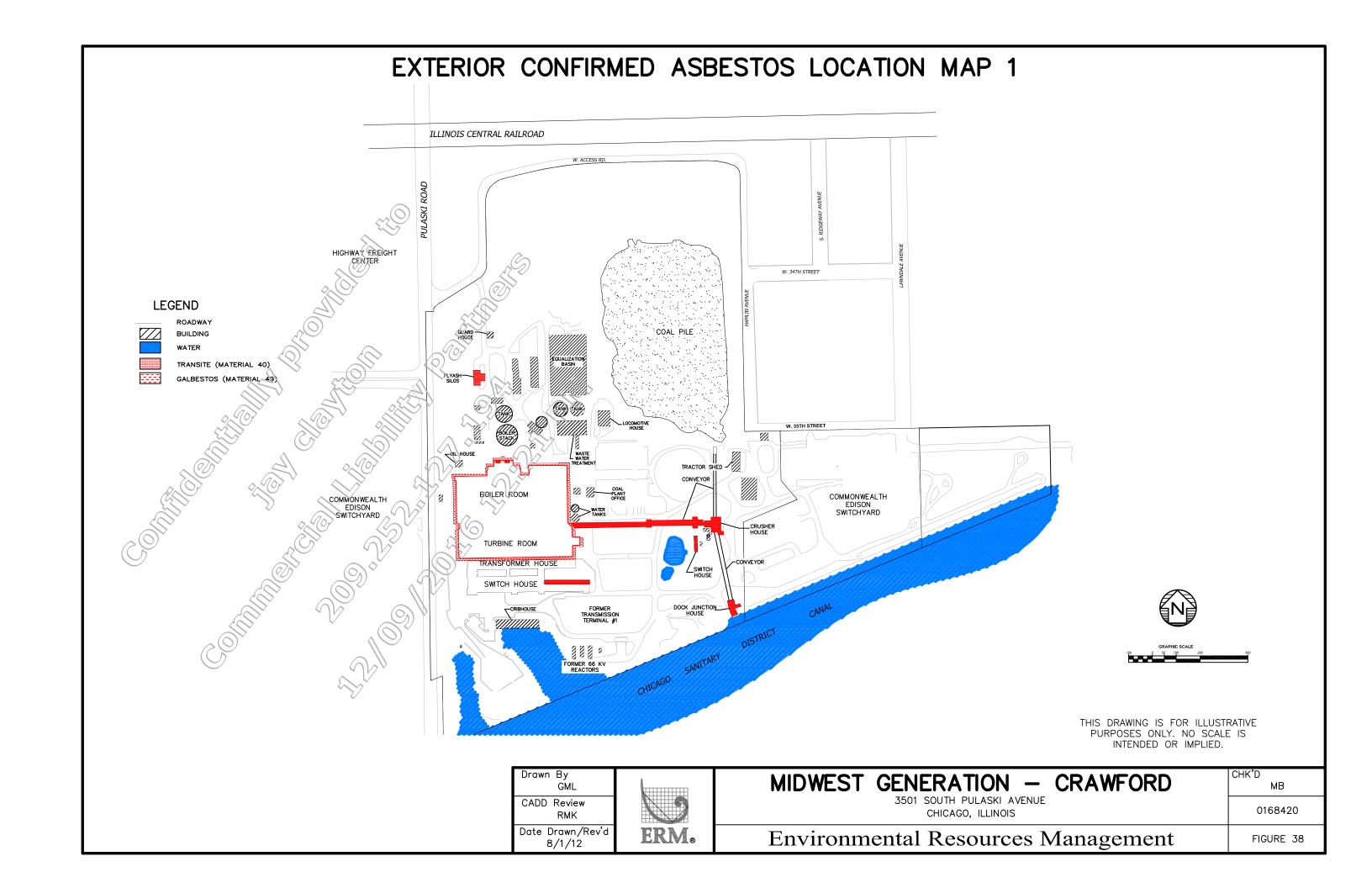


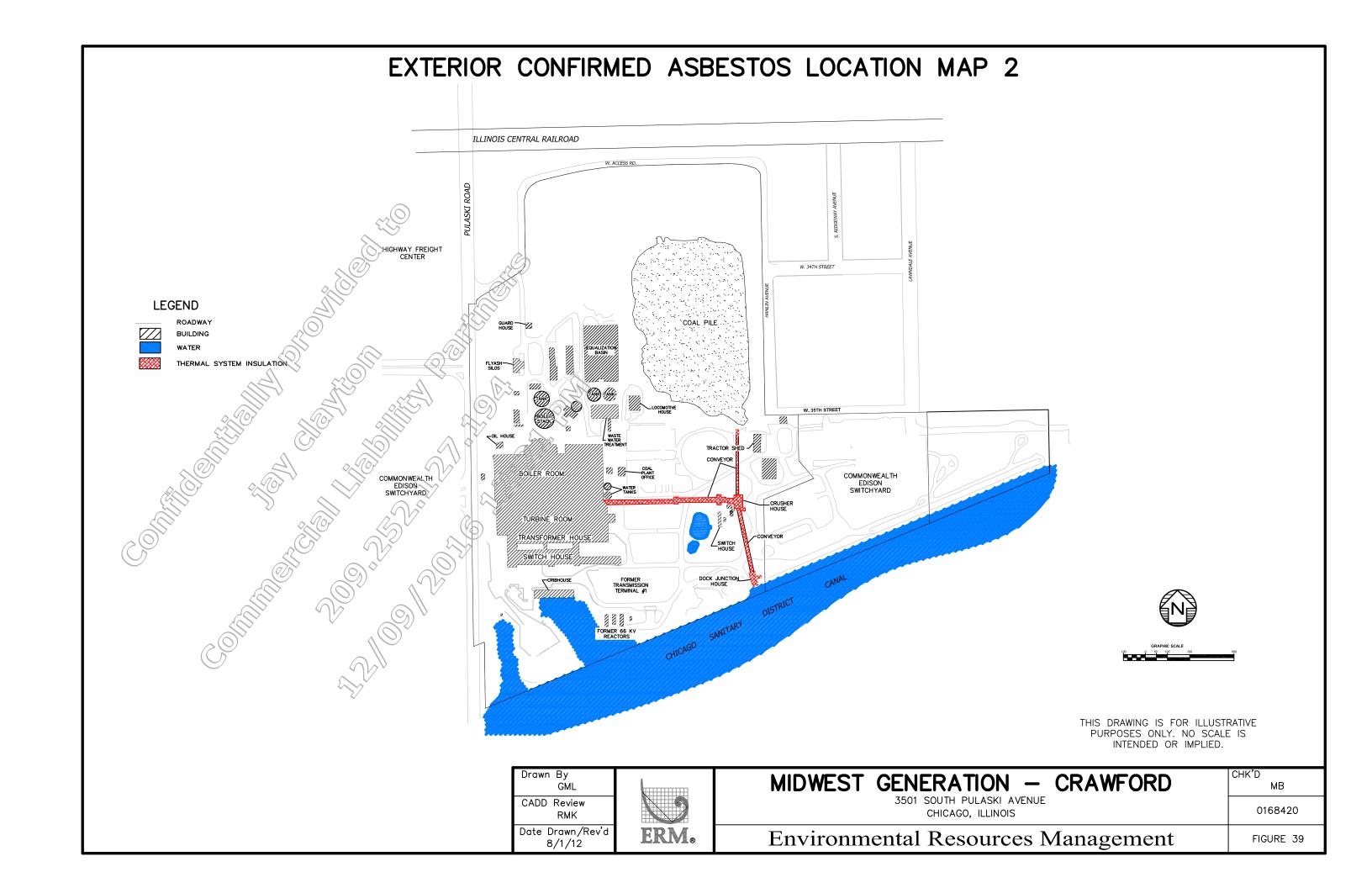
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MIDWEST GENERATION - CRAWFORD	CHK'D MB
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Environmental Resources Management	FIGURE 37

S:\Midwest Generation\0168420 - Chicago Two Plant Demolition Project\xxxx\acad\Crawford\Crawford_outbld







Photograph: 1 View of asbestos-containing plaster materials in the turbine room storage area

Midwest Generation 3501 S. Pulaski Road Chicago, IL



Date: June 2012



Photograph: 2 View of asbestos-containing 9"x9" black floor tile and mastic in the switch house

Midwest Generation 3501 S. Pulaski Road Chicago, IL





Photograph: 3 View of gray floor tile. Asbestos-containing mastic is beneath the tile.

Midwest Generation 3501 S. Pulaski Road Chicago, IL ODate: June 2012



Photograph: 4 View of typical asbestos-containing TSI in the basement area

Midwest Generation 3501 S. Pulaski Road Chicago, IL





Photograph: 5 View of typical aspestos-containing TSI in the basement area

Midwest Generation 3501 S. Pulaski Road Chicago, IL



Date: June 2012



Photograph: 6 View of typical asbestos-containing TSI in the crib house

Midwest Generation 3501 S. Pulaski Road Chicago, IL





Photograph: 7 View of typical aspestos-containing TSI in an out building

Midwest Generation 3501 S. Pulaski Road Chicago, IL



Date: June 2012



Photograph: 8 View of typical asbestos-containing TSI in the switch house

Midwest Generation 3501 S. Pulaski Road Chicago, IL





Photograph: 9

Midwest Generation 3501 S. Pulaski Road Chicago, IL



Date: June 2012



View of asbestos-containing green floor tile, gray floor tile, and associated mastic Photograph: 10 in the telecom room of the turbine room

Midwest Generation 3501 S. Pulaski Road Chicago, IL





Photograph: 11 View of asbestos-containing mastic beneath dark tan floor tile in assembly room storage area on the 4th floor of the switch house

Midwest Generation 3501 S. Pulaski Road Chicago, IL



Date: June 2012



Photograph: 12 View of white floor tile with tan streaks in the 1st floor of the turbine room. Asbestos-containing mastic is below the tile

Midwest Generation 3501 S. Pulaski Road Chicago, IL





Photograph: 13 View of asbestos-containing maroon sheet flooring in Room 413 of the switch house

Midwest Generation 3501 S. Pulaski Road Chicago, IL



Date: June 2012



Photograph: 14 View of asbestos-containing transite materials at the main plant

Midwest Generation 3501 S. Pulaski Road Chicago, IL





Photograph: 15 View of typical aspestos-containing transite panel in the switch house

Midwest Generation 3501 S. Pulaski Road Chicago, IL



Date: June 2012



Photograph: 16 View of asbestos-containing transite material in the basement of the switch house

Midwest Generation 3501 S. Pulaski Road Chicago, IL





Photograph: 17 View of typical aspestos-containing interior window glazing

Midwest Generation 3501 S. Pulaski Road Chicago, IL



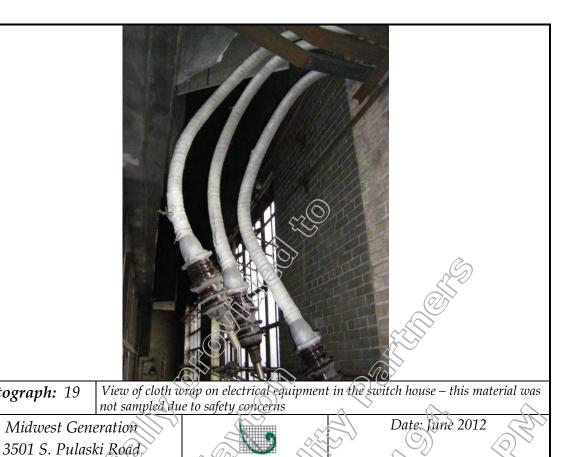
Date: June 2012



Photograph: 18 View of typical asbestos-containing window caulk

Midwest Generation 3501 S. Pulaski Road Chicago, IL





Photograph: 20 View of boiler 5/6 insulation

Date: June 2012

Photograph: 19

Chicago, IL

Midwest Generation 3501 S. Pulaski Road Chicago, IL



Photograph: 21 View of Boiler 778 Insulation Wrap

Midwest Generation 3501 S. Pulaski Road Chicago, IL



Date: June 2012



Photograph: 22 View of ash hopper insulation

Midwest Generation 3501 S. Pulaski Road Chicago, IL





Photograph: 23 View of red galbestos on exterior

Midwest Generation 3501 S. Pulaski Road Chicago, IL



Date: June 2012



Photograph: 24 View of 12"x 12" Gray floor tile over 12"x 12" Brown floor tile

Midwest Generation 3501 S. Pulaski Road Chicago, IL





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Facility Name: <u>Craw for J</u> Client Name: <u>MW Gen</u> ERM | Inspector Name: | Date: 6 19 12 - 6 21 12

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CQ-001	2'44 white ceiling tile w/ was \$.	yth floor switchhouse .office	405 4th Clour owner office Room as 4th	Yes	v-00l	
cn-003	Fisches		5:100x Messie copusion		5	
inou	Plaster	Switchhouse	405	ho O	6006	
cn-005	Material		239			
en-66		<	Switch horse	507		41.4
CK-007		Turbice	300 flow room	PO	Poor	
C1-008		Building	Steer case and to any le			·
cs~ac			and to English Row m			
CR-010		Building	1 St Choir wow	Po	poor	-
(n-ou	l'x b while	4 th Floor suitehhouse officer	405	Yes	6-001	
Choir Chois	cellig tile		405			
in-014,	Blach 9 x 9"	ypr Floor	405	μο	Fair	
41-015	E1000	office	405		,	
caroll	ナバン		405			
(N-017 CN-018	2×4'	4th floor switch howe	room adjusent to	Yes	رحص	
caoig	Ceiling the	office	4th Floor office John 4th Floor men's			

l
EKIVI

Inspector Name:	Facility Name:
Date:	Client Name:

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CN-021	Teruto Flooring	4th floor switchhouse office	ontable (1000 113) Att those was ontable 102 Att those 1102	No	(rood	
chory	1/x1' darke gray plantile with ten spees	4th floor Switch house office	ortside 413		(rco)	
crore	Rev & orange nober stair ,.	Steirwiths in Switchware and inbine boarding office	4th Floor stained	NO 103	0-000	\Rightarrow
(2003)	1'x1' light blue Closs tile	Ath Plow Switch how Office	4th Floor admin	No J	C-0~J	-
en-033 en-034	_ ,	4th floor Switchhouse office	The state somin	ρ _ο .	6-00c)	•
(2035) (2036)	3" Herman pipe Insolution	yth Flour Scattenhauge Office torbine Block	HTM Class Resident Wench HTM Stoop Etained With Stoop Fairwal ZNJ Class Maintain Truly nem	Yes	Fair	
(2-038 (2-034) (2-040)	Flooring under Corpet	4th Flour switchness office	form adj to	μο	fair	



Inspector Name:	Facility Name:
Date:	Client Name:
Date.	

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
(n-042	2×2 white popular ceiling .	11th Floor Switch have Office	MONT Classicon	Hes	For ic	
Cn-ony	3" durh ten vinyl	4th Floor switchhouse	4th Gross MUMIT Etuis room		୯୦୬	
CN-045	baseboard	office			0.000	
CR-047	2×4 white	4th Clock switch how	48			⇒ ·
C1-048	w span 4.	affice	413	7(5)	0-000	
CR-050	large dots	Justechnique	24(85-			-
(A-051	ceiling title	office	415	Yes	८०००	
(N-052			4150	6		
er-053	411 Hemal	4th f-1007	With Groot phint	5		
Cn-054	Pipe Insulction	See in	HIM ENSA. CAR HUMBER MOOM 154 DOOR HUMBER	yes .	Fuir	4 44
C12055	-	tortine Bildy	001010 - A	· · · · · · · · · · · · · · · · · · ·		
	Interior Window	Switch house	30 Floor Bushinger	_	4	
(R.0572 CR-0578	portry	turbine buildry	200 flow mainten	No	poor	
Ca-05 ⁶ 1	1'x1' tan	Switchaze	414	,		
42-060	floor tik	office	414	No	Good	
دلا ، ۱۵ (۱۶۰	ufspecs		414			

Page 3 of Pages



Inspector Name:	Facility Name:	
Date:	Client Name:	

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
ur-062	DUT	Su Henruse	HHA Floor evir	Yes	anso	
cn-063	Insulation			105	disog	
CR-064					ð	
cn-065	Block	5 witchhouse	Noon		C	
(N-066	Jampening	turvine	200 Floor Rousies	A COS	fair	
cr067	U	Blog	15+ Aloca turbine			
CN-668	blas.	+ unoine	recens for non-	Nobs	good ?	>
ርየራሪዓ	3" Brown Vingl	BID	records by com	725	Soit?	
U1-070	basebourd		Fap 1000 16 East			
(n-071	tun s	Fortoline	SM floor wheter			-
しれのそと	Damping.	BUG		Yes	feeir	
CN-073	Cloth	0			,	
ረル~ንጕ(e x	turbine	telen com	5 7 7		
Ln-075	Floor tile	Blog) ho	Feril	
LRUH						
(n-077	g"xq"yuq	-fortine	znd flour room		·	
(n-078	Floor tive	Building		$\mathcal{N}_{\mathcal{D}}$	Fair	
(16074						
CD-030	Drynall	Switchhas	um clour office			And the Control of th
(12-081	System	turbine	2nd floor och in Noon 8/9	Yes	geson	
Under	r .	Bulldy	2m floor admin			

(R-081A



Inspector Name:_	Facility Name:
Date:	Client Name:

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CR-082	Thermil	Terbine	Basement		•	
17-033	PIPP	Terbine Blogi				
CR-ofy	Inclation) _{در}	5	
CR-ass	Pipe	Publing	Air Handling/Control		7	
(R-Ox6	Fitting	Purbing Switchyear	3rd Pl of Justilyear			
CR-087	Insulation	((Brotoment	907		
CR-088	Oark Tan Floortild	Switchgen	Store Rom/Altem bly	63	S	
CR-089	n/Brown d	4.0				
CK-090	Tan Straki					
And a second part of the second						·
CR-U11	Spray-cy		Besteven & Chemin		/	······································
CR-OAD	Invierm	Bayment			50°	
CR-013	0					
CR-094				<i>^</i>		
CK-095						
CR-096						
(R-097		<u> </u>				-
CR-098	Black Vinyl Baseboard Mash ce		1st Plan Turkens bldg Pest Lab			And the state of t
CR-099	Basebicard			na n		
(R-100	Mastre		V	AV.		

Page 5 of 12 Pages

Inspector Name:	Facility Name:
Date:	Client Name:
Date.	·

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CR-101 CR-102 ER-103	/x/white F.T. H Tandtrenks /Mexpi	Ferbine Blog	1st Floer	,	S	
CR-104 CR-106 CR-106	Extenior Window Caulk	Switch House	Swerth wall			
CR-107 CR-108 CR-109	,	Basement Terbinal Suitchgene	Bargant			
CR-111 CR-111	Brown de Tan Fit destable	Bldg 5	2A FL OFFICE			
CR-113 CR-114 CR-116	Marvin Vinyl Baseboardd Mastic	Turbine Bidg			·	
(R-116) CR-117 CR-118	Concrett Sub Floor	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	orak humis			·
	Marron sheet. Flooring	Switchyrar	Room 413			



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	Inspector Name:	Facility Name:
ERM	Date:	Client Name:
	- Date,	

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CRIST	2(x) (white	Terbini	2NAFL			
(R-123	C.T. W/Large	Blog			,	}
CR-124	2(X) White C.T. Whaye and small Bots			(2	ò	
CR-125	70. 10	0 / /	44n PS			
(R-126	Pansitt	Switchgear Reems	37472			
CR-127	Transite Panels	Rooms	and FL			
CR-128	cement	Switchgear Rums	4th Flor			
CR-129	wall	Record	YHN FRANC			
CR-130) \		The Place			
CR-131			and Floor			
CK-132			2rd Place		~	
CR-133		~	18 Floor	6		
CR-134			DS+ Floor		and the second s	
			89) 19)) }		
CR-131						Multi-region of the state of th
CR-136	Spray-on Insulation	COD	Crib House			
CR-137	Invition	House		:		,
CR-138						
CK-39						
CR-140						
CR-141			V			

ERM

Inspector Name:	Facility Name:
Date:	Client Name:

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
	Interior Window Caulk	Crib . Itouse	Crib House	Y	P	
CR-145 CR-146 CR-147	Window	Crib House	Cris House window		P	
	Boiler Insvlation	Boile	Boiler 6-4 Boiler 63		P	>
CR-151 CR-152 CR-153	Boilera	Boilton. Rocin	6th Flor			
CR-154 CR-156		Boiler &	Boiler & John Level		The state of the s	
CR-158	Ash Hopper Insilation	Borler Room	Boiler & AJR Happing			
100-160	corrugated galbestes	Exterior	NEC BOILER ROOM NEC BOILER ROOM			



Inspector Name:_	Facility Name:
napestor Namo Date:	Client Name:

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
					ranyroon)	
CR-163	Red 1	MATERIA	North Center Fay			
CR-164	Corrugate	Exterior	uvel 8 e 1 e va For			
CR-168	galbestes.	Exterior	Level 8 x Povator	_(0		
CR-166	T.		Level Belivator	Law abada karama Samura Angaritan ang		
	And the state of t	productions account that the last ship his production are an adjusted to the contract of the c		A Topic Commission	and the later command and the special and the	and a financial confidence which where the second of
			8			
				, O,		
CK-167	2/24/	Control	Control Room	63	As a	>
CR-168	white C.T. W/small dats	Neglox			O S	
CR-169	& Firmer					
CR-170	Housing	Basewest	Basenten +			
CR-171	Housing Insulation					
(R-17)		Terbine				
CR-17	Chay	Level 2	Exst stell))		
CK-175	Transite Panel	Fan Flag	Wist Steil			
CR-171	Panel		wastshef	•		
CR-17.0	window	Boiler	12 Fan Flear			
CR-17	9/021mg	Roem	Nu stains		**************************************	
OR-17	- i		NW. Stains			
	Plaster	Boiler	Boiler House			
CR-180	17/95/1	Horse				
CR-181			\(\)			

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Inspector Name:Facility Name:
Date:Client Name:

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CR-182		Boiler	Beiler Herse		-	
CR-183	Plaster 1	Hevst				
CK-184				22	9	
CR-185	***************************************					
CR-186	V		27			A manager of the state of
		(6)	2nd Hoer	10°		
	Ovet	2 nd FC	12.00	(6.3	a di	
CR-188	In lation	2 not FC Lockeroom Boiler Hee				
CR-189						
l	1/X1	Balen	42 John Rounn			
CK-19]	gray Ind	Her Ses				
CR-192	Mosfi (.		With FL VI			
CK-193	Mywall	Beiler &	Tright Hours	Þ		
CR-194	[w/qwai]	Herse	500			
CR-195			WHAR NO			
CR-196	2x4/white	Boilto	4th Plus 4t Ran			
CR-197	C.T. of Small dots of Small Resource	Huse				
			old Security office			
CR-199	1×1'gray F.T. over 1×1' Brown F.T.	Boiler	office 1			
CR-200	Brown F.T.	17VVJ~(
(R-20)	dMutic		V			



Inspector Name:	Facility Name:
Date:	Client Name:

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
CR-202	1/x1'Brigg	Boiler	Stere Accord			
(R-203	Fit. W/ White specks & Mastic	House				
CR-ZIY	& MRITIC			20	9	
CR=201	J/XY/Whit	Boiler	Stockoon			
(R206	2/xy/white Citing dotsd slashes	House				
(K207		6		107°		
CR-LUS	hinden Caulk	Extra Boiler	Box les House) (D3)		>
(R-209	CAUK	12000				
CR-210						
CR-211	Vibration dampered Carlet	Borker	Level S		\(\rightarrow\)	
(R212	damperer	House				
CR-213	720					
,	9			9 ₅		
						٠
	1					
						,
		:				

Inspector Name:	Facility Name:
Date.	Client Name:

Sample No.	Material Description	Location	Sample Location	Friable (Yes/No)	Condition (Good/ Fair/Poor)	Quantity
	Tank	WWTP	Sodium Hydroxill	Y	Guar	
CK-215	Involution			200	D	
CR-217	Interior Window	WWTP	Interior Window		P	
CR-219	CAVIK	(6				
CR-22C	Exterior Window	Locamo Fire	ew Exprior Wall	Y (6)3	P	>
C R-222	Caulk					
i	2/42/ 8	Coal plant	Coal Planting	Y	G	
CR-225	C. 1, W 61075	office		6		
CN-22	C100000)	Gent Shack	Ociro Stock) _x	رامول	
Cons	tile					
						·



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EMSL Order: 261204015 CustomerID: ERMI78

CustomerPO: ProjectID:

in: Mat Aigner
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One Continental Tower
1701 Golf Road, Suite 1-1000
Rolling Meadows, IL 60008

Phone: (847) 258-8900
Fax: (847) 258-8901
Received: 06/21/12 3:14 PM
Analysis Date: 6/26/2012

Collected:

Project: 0168420

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

CR-001 261204015-0001 CR-002 261204015-0002 CR-003 261204015-0003 CR-004-Skim Coat 261204015-0004	4TH FL SWITCHHOUSE OFFICE CEILING TILE	Appearance White Fibrous Heterogeneous	% Fibrous 40% Cellulose 40% Min. Wool	% Non-Fibrous (other)	% Type None Detected
261204015-0001 CR-002 261204015-0002 CR-003 261204015-0003 CR-004-Skim Coat	SWITCHHOUSE OFFICE CEILING TILE	Fibrous	. (())	20% Non-fibrous (other)	None Detected
261204015-0002 CR-003 261204015-0003 CR-004-Skim Coat		∠		TOP .	
261204015-0003 CR-004-Skim Coat	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	60% Cellulose 20% Min. Wool	20% Non-fibrous (other)	None Detected
	4TH FL SWITCHHOUSE OFFICE CEILING TILE	Non-Fibrous Heterogeneous	60% Celiulose 20% Min. Wool	20% Non-fibrous (other)	None Detected
	SWITCHHOUSE PLASTER	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-004-Base Coat 261204015-0004A	SWITCHHOUSE PLASTER	White Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
CR-005-Skim Coat 261204015-0005	SWITCHHOUSE PLASTER	White Non-Fibrous Homogeneous		100% Non fibrous (other)	None Detected
CR-005-Base Coat 261204015-0005A	SWITCHHOUSE PLASTER	White Non-Fibrous Heterogeneous	W (100% Non-fibrous (other)	None Detected

Analyst(s)

Alice Hillegass (141) Dahlia Zyhowski (34) Nick Neu (78)

James Hahn, Laboratory Manager or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Chicago, IL NVLAP Lab Code 200399-0, TX 300289



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EMSL Order: 261204015 CustomerID: ERMI78

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Mat Aigner
 ERM, Inc.
 One Continental Tower
 1701 Golf Road, Suite 1-1000
 Rolling Meadows, IL 60008

Phone: (847) 258-8900 Fax: (847) 258-8901 Received: 06/21/12 3:14 PM Analysis Date: 6/26/2012

Collected:

Project: **0168420**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-As	bestos (7/)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-006-Texture	SWITCHHOUSE	Gray		100% Non-fibrous (other)	None Detected
261204015-0006	PLASTER	Non-Fibrous Heterogeneous			
CR-006-Base Coat		Gray		100% Non-fibrous (other)	<1% Chrysotile
261204015-0006A	PLASTER	Non-Fibrous Heterogeneous			
CR-007-Brick	TURBINE	Orange	3	190% Non-fibrous (other)	None Detected
261204015-0007	BUILDING PLASTER	Non-Fibrous Heterogeneous			
			Sample 7 is not homogeneous	with samples 8 and 9.	
CR-007-Mortar	TURBINE	Gray		98% Non-fibrous (other)	2% Chrysotile
261204015-0007A	BUILDING PLASTER	Non-Fibrous Heterogeneous			\checkmark
		3, 10	Sample 7 is not homogeneous	with samples 8 and 9.	
CR-008-Skim Coat	TURBINE	White		100% Non-fibrous (other)	None Detected
261204015-0008	BUILDING PLASTER	Non-Fibrous Homogeneous		\$\frac{1}{2} \text{\tin}\text{\tex{\tex	
CR-008-Base Coat	1 -()-)	Gray	100	100% Non-fibrous (other)	None Detected
261204015-0008A	BUILDING PLASTER	Non-Fibrous Heterogeneous			
CR-009-Skim Coat	-	White	(0)	100% Non-fibrous (other)	None Detected
261204015-0009	BUILDING PLASTER	Non-Fibrous Homogeneous			
CR-009-Base Coat	TURBINE	Gray		100% Non-fibrous (other)	None Detected
261204015-0009A	BUILDING PLASTER	Non-Fibrous			
	FLASIER	Heterogeneous			

Analyst(s)

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Project: **0168420**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Ask	oestos (7//)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-010 261204015-0010	TURBINE BUILDING PLASTER	Gray Non-Fibrous Heterogeneous		96% Non-fibrous (other)	4% Chrysotile
CR-011 261204015-0011	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	98% Cellulose	2% Non-fibrous (other)	None Detected
CR-012 261204015-0012	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	98% Cellulose	2% Non-fibrous (other)	None Detected
CR-013 261204015-0013	4TH FL SWITCHHOUSE OFFICE CEILING TILE	Brown Fibrous Heterogeneous	98% Cellulose	2% Non-fibrous (other)	None Detected
CR-014-Floor Tile 261204015-0014	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Black Non-Fibrous Homogeneous		96% Non-fibrous (other)	4% Chrysotile
CR-014-Mastic 1 261204015-0014A	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-014-Mastic 2 261204015-0014B	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Black Non-Fibrous Homogeneous		93% Non-fibrous (other)	7% Chrysotile

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			♦ <u>Non-Asl</u>	pestos (7/)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-015-Floor Tile 261204015-0015	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	4			Stop Positive (Not Analyzed)
CR-015-Mastic 1 261204015-0015A	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-015-Mastic 2 261204015-0015B	4TH FL SWITCHHOUSE OFFICE FLOOR TILE				Stop Fositive (Not Analyzed)
CR-016-Floor Tile 261204015-0016	4TH FL SWITCHHOUSE OFFICE FLOOR TILE				Stop Positive (Not Analyzed)
CR-016-Mastic 261204015-0016A	4TH FL SWITCHHOUSE OFFICE FLOOR TILE				Stop Positive (Not Analyzed)
CR-017 261204015-0017	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)	None Detected
CR-018 261204015-0018	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	60% Cellulose 20% Min. Wool	20% Non-fibrous (other)	None Detected

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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbe	estos (Q/)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-019 261204015-0019	4TH FL SWITCHHOUSE OFFICE CEILING TILE	Gray Fibrous Heterogeneous	60% Gellulose 20% Min. Wool	20% Non-fibrous (other)	None Detected
CR-020 261204015-0020	4TH FL SWITCHHOUSE OFFICE TERAZO FLOORING	Various Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
CR-021 261204015-0021	4TH FL SWITCHHOUSE OFFICE TERAZO FLOORING	Various Non Fibrous Hererogeneous		100% Non-fibrous (other)	None Detected
CR-022 261204015-0022	4TH FL SWITCHHOUSE OFFICE TERAZO FLOORING	Gray/Black Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
CR-023-Floor Tile 1 261204015-0023	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-023-Floor Tile 2 261204015-0023A	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Cream Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-023-Mastic 261204015-0023B	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Black Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile

Analyst(s)

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Analysis Date: 6/26/2012
Collected:

Rolling Meadows, IL 60008

Project: **0168420**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbes	stos	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-023-Leveler 261204015-0023C	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Gray Non-Fibrous Homogeneous	5% Gellulose	95% Non-fibrous (other)	None Detected
CR-024-Floor Tile 1 261204015-0024	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-024-Mastic 261204015-0024A	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Yellow Non Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-024-Floor Tile 2 261204015-0024B	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Cream Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-024-Mastic 261204015-0024C	4TH FL SWITCHHOUSE OFFICE FLOOR TILE				Stop Positive (Not Analyzed)
CR-025-Floor Tile 1 261204015-0025	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-025-Mastic 1 261204015-0025A	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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				Non-A	<u>Asbestos</u>	(9/1)	<u>Asbestos</u>
Sample	Description	Appearance	%	Fibrous	% Non-Fibrous		% Type
CR-025-Floor Tile 2 261204015-0025B	2 4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Cream Non-Fibrous Homogeneous			100% Non-fibr	ous (other)	None Detected
CR-025-Mastic 2 261204015-0025C	4TH FL SWITCHHOUSE OFFICE FLOOR TILE		7				Stop Positive (Not Analyzed)
CR-026-Tread 261204015-0026	STAIRWELL IN SWITCHHOUSE &TURINE RUBBER STAIR TRED	Rust Non Fibrous Homogeneous			400% Non-fibro	ous (other)	None Detected
CR-026-Glue 261204015-0026A	STAIRWELL IN SWITCHHOUSE &TURINE RUBBER STAIR TRED	Black/Yellow Non-Fibrous Heterogeneous			100% Non-fibro	ous (other)	None Detected
CR-027-Tread 261204015-0027	STAIRWELL IN SWITCHHOUSE &TURINE RUBBER STAIR TRED	Purple Non-Fibrous Homogeneous			100% Non-fibro	ous (other)	None Detected
CR-027-Glue 261204015-0027A	STAIRWELL IN SWITCHHOUSE &TURINE RUBBER STAIR TRED	Cream Non-Fibrous Homogeneous		7	100% Non-fibro	ous (other)	None Detected

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				_	
			Non-Asbest	os (7)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-028-Tread 261204015-0028	STAIRWELL IN SWITCHHOUSE &TURINE RUBBER STAIR TRED	Purple Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-028-Glue 261204015-0028A	STAIRWELL IN SWITCHHOUSE &TURINE RUBBER STAIR TRED	Black/Cream Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-029-Floor Tile 261204015-0029	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Blue Non-Fibrous Flomogeneous		100% Non-fibrous (other)	None Detected
CR-029-Mastic 261204015-0029A	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-029-Leveler 261204015-0029B	4TH FO SWITCHHOUSE OFEICE FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-030-Floor Tile 261204015-0030	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Blue Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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			Non-Asb	estos (OZ)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-030-Mastic 4TH FL SWITCHHOUSE OFFICE FLOOR TILE		Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-030-Leveler 261204015-0030B	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-031-Floor Tile 261204015-0031	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Green Non Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-031-Mastic 261204015-0031A	4TH FL SWITCHHOUSE OFFICE FLOOR TILE	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-032-Cove Base 261204015-0032	4TH FL SWITCHHOUSE OFFICE INYL BASEBOARD	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-032-Mastic 261204015-0032A	4TH FL SWITCHHOUSE OFFICE VINYL BASEBOARD	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-033-Cove Base 261204015-0033	SWITCHHOUSE OFFICE VINYL BASEBOARD	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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			Non-Asb	estos (0))	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-033-Mastic	4TH FL	Yellow		100% Non-fibrous (other)	None Detected
261204015-0033A	SWITCHHOUSE OFFICE VINYL BASEBOARD	Non-Fibrous Homogeneous			
CR-034-Cove Base		Gray	(0)	100% Non-fibrous (other)	None Detected
261204015-0034	SWITCHHOUSE OFFICE VINYL BASEBOARD	Non-Fibrous Homogeneous			
CR-034-Mastic	4TH FL	Yellow		100% Non-fibrous (other)	None Detected
261204015-0034A	SWITCHHOUSE OFFICE VINYL BASEBOARD	Non Fibrous Homogeneous			
CR-035	4TH FL	White	2/101	75% Non-fibrous (other)	25% Chrysotile
261204015-0035	SWITCHHOUSE OFFICE THERMAL PIPE INSULATION	Non-Fibrous Heterogeneous			
CR-036	4TH FL				Stop Positive (Not Analyzed)
261204015-0036	SWITCHHOUSE OFFICE		200	Vic 2	
	THERMAL PIPE INSULATION				
CR-037	4TH FL		3) (0),		Stop Positive (Not Analyzed)
261204015-0037	SWITCHHOUSE OFFICE				
	THERMAL PIPE INSULATION		V (

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			Non-Asbes	tos (O))	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-038-Flooring 261204015-0038	4TH FL SWITCHHOUSE OFFICE FLOORING UNDER CARPET	Brown Non-Fibrous Heterogeneous	20% Cellulose	80% Non-fibrous (other)	None Detected
CR-038-Mastic 261204015-0038A	4TH FL SWITCHHOUSE OFFICE FLOORING UNDER CARPET	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-039-Flooring 261204015-0039	4TH FL SWITCHHOUSE OFFICE FLOORING UNDER CARPET	Brown Non-Fibrous Fleterogeneous	20% Cellulose	80% Non-fibrous (other)	None Detected
CR-039-Mastic 261204015-0039A	4TH FL SWITCHHOUSE OFFICE FLOORING UNDER CARPET	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-040-Flooring 261204015-0040	4FH.FL SWITCHHOUSE OFFICE FLOORING UNDER CARPET	Brown Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected

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			Non-A	SDESTOS	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-040-Mastic 261204015-0040A	4TH FL SWITCHHOUSE OFFICE FLOORING UNDER CARPET	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-041 261204015-0041	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	95% Min Woo!	5% Non-fibrous (other)	None Detected
CR-042 261204015-0042	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	95% Cellulose	5% Non-fibrous (other)	None Detected
CR-043 261204015-0043	4TH FL SWITCHHOUSE OFFICE CEIDING TILE	White Fibrous Heterogeneous	95% Min. Wool	5% Non-fibrous (other)	None Detected
CR-044-Cove Base 261204015-0044	SWITCHHOUSE OFFICE VINYL BASEBOARD	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-044-Mastic 261204015-0044A	4TH FL SWITCHHOUSE OFFICE VINYL BASEBOARD	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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			Non-Asbe	estos	Asbestos
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-045-Cove Base 261204015-0045	4TH FL SWITCHHOUSE OFFICE VINYL BASEBOARD	Tan Non-Fibrous Homogeneous	£8 £8	100% Non-fibrous (other)	None Detected
CR-045-Mastic 261204015-0045A	4TH FL SWITCHHOUSE OFFICE VINYL BASEBOARD	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-046-Cove Base 261204015-0046	4TH FL SWITCHHOUSE OFFICE VINYL BASEBOARD	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-046-Mastic 261204015-0046A	4TH FL SWITCHHOUSE OFFICE VINYL BASEBOARD	Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-047 261204015-0047	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	70% Cellulose 10% Min. Wool	20% Non-fibrous (other)	None Detected
CR-048 261204015-0048	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	70% Cellulose 10% Min. Wook	20% Non-fibrous (other)	None Detected
CR-049 261204015-0049	4TH FL SWITCHHOUSE OFFICE CEILING TILE	White Fibrous Heterogeneous	70% Cellulose 10% Min. Wool	20% Non-fibrous (other)	None Detected

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				Non-As	<u>bestos</u>	(92)	<u>Asbestos</u>
Sample	Description	Appearance	%	Fibrous	% Non-Fibrou	us 💮	% Type
CR-050	4TH FL	Gray	95%	Min. Wool	5% Non-fib	orous (other)	None Detected
261204015-0050	SWITCHHOUSE OFFICE CEILING TILE	Fibrous Heterogeneous		<u>9</u>)			
CR-051	4TH FL	Gray	95%	Min. Wool	5% Non-fib	orous (other)	None Detected
261204015-0051	SWITCHHOUSE OFFICE CEILING TILE	Fibrous Heterogeneous					Sh .
CR-052	4TH FL	Gray C	95%	Mir. Wool	5% Non-fib	orous (other)	None Detected
261204015-0052	SWITCHHOUSE OFFICE CEILING TILE	Fibrous Hererogeneous				\$ 6	
CR-053	4TH FL	Various	3	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	50% Non-fib	orous (other)	50% Chrysotile
261204015-0053	SWITCHHOUSE &TURBINE 3LDG PIPE INSULATION	Fibrous Heterogeneous), ·				
CR-054	4TH FL			(0)	\$50	(O)	Stop Positive (Not Analyzed)
261204015-0054	SWITCHHOUSE &TURBINE BLDG		200	5 4		> 7	
	PIRE INSULATION		W)	<u>(a)</u>	\$V (0)	✓	
CR-055	4TH FL		>		(V		Stop Positive (Not Analyzed)
261204015-0055	SWITCHHOUSE &TURBINE BLDG			5			
	PIPE INSULATION			V			

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Samples analyzed by EMSL Analytical, Inc. Chicago, IL NVLAP Lab Code 200399-0, TX 300289



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Received: 06/21/12 3:14 PM
Analysis Date: 6/26/2012

Collected:

Project: **0168420**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

		NOTI-ASD	estos	<u>Asbestos</u>
Description	Appearance	% Fibrous	% Non-Fibrous	% Type
SWITCHHOUSE & TURBINE BLDG INTERIOR WINDOW PUTTY	Gray/White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
SWITCHHOUSE & TURBINE BLDG INTERIOR WINDOW PUTTY	White Non-Fibrous Homogeneous	2% Glass	98% Non-fibrous (other)	None Detected
SWITCHHOUSE & TURBINE BLDG INTERIOR WINDOW PUTTY	White Non Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
SWITCHHOUSE OFFICE FLOOR TILE	Fan Non-Fibrous Homogeneous		100% Noh-fibrous (other)	None Detected
SWITCHHOUSE OFFICE FLOOR TILE	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
SWITCHHOUSE OFFICE FLOOR TILE	Tan Non-Fibrous Homogeneous		100% Non fibrous (other)	None Detected
SWITCHHOUSE OFFICE FLOOR TILE	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
	SWITCHHOUSE & TURBINE BLDG INTERIOR WINDOW PUTTY SWITCHHOUSE & TURBINE BLDG INTERIOR WINDOW PUTTY SWITCHHOUSE & TURBINE BLDG INTERIOR WINDOW PUTTY SWITCHHOUSE OFFICE FLOOR TILE SWITCHHOUSE OFFICE FLOOR TILE SWITCHHOUSE OFFICE FLOOR TILE SWITCHHOUSE OFFICE FLOOR TILE SWITCHHOUSE OFFICE FLOOR TILE	SWITCHHOUSE & TURBINE BLDG INTERIOR WINDOW PUTTY SWITCHHOUSE OFFICE FLOOR TILE SWITCHHOUSE OFFICE FLOOR Non-Fibrous Homogeneous SWITCHHOUSE OFFICE FLOOR Non-Fibrous Homogeneous	Description Appearance % Fibrous SWITCHHOUSE & TURBINE BLDG INTERIOR WINDOW PUTTY SWITCHHOUSE OFFICE FLOOR Non-Fibrous Homogeneous SWITCHHOUSE OFFICE FLOOR TILE Homogeneous SWITCHHOUSE OFFICE FLOOR Non-Fibrous Homogeneous	SWITCHHOUSE & TURBINE BLDG INTERIOR WINDOW PUTTY SWITCHHOUSE OFFICE FLOOR TILE SWITCHHOUSE OFFICE FLOOR TILE

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			Non-As	bestos (V/)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-061-Floor Tile	SWITCHHOUSE	Tan		100% Non-fibrous (other)	None Detected
261204015-0061	OFFICE FLOOR TILE	Non-Fibrous Homogeneous			
CR-061-Mastic	SWITCHHOUSE	Black/Yellow		100% Non-fibrous (other)	None Detected
26120 4 015-0061A	OFFICE FLOOR TILE	Non-Fibrous Homogeneous			A)
CR-062	SWITCHHOUSE	Gray	(2)	50% Non-fibrous (other)	50% Chrysotile
261204015-0062	DUCT INSULATION	Fibrous Heterogeneous			
CR-063	SWITCHHOUSE		0		Stop Positive (Not Analyzed)
261204015-0063	DUCT INSULATION				<i>y</i>
CR-064	SWITCHHOUSE	57 474			Stop Positive (Not Analyzed)
261204015-0064	DUCT INSULATION				
CR-065	SWITCHHOUSE	Black	100% Cellulose	0% Non-fibrous (other)	None Detected
261204015-0065	& TURBINE BLDG VIORATICH DAMPENING	Fibrous Heterogeneous			
CR-066	SWITCHHOUSE	Black	15% Synthetic	85% Non-fibrous (other)	None Detected
261204015-0066	& TURBINE BLDG	Non-Fibrous			
	VIORATICH DAMPENING	Heterogeneous	, V		

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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbe	estos (V/)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-067 261204015-0067	SWITCHHOUSE & TURBINE BLDG VIORATICH DAMPENING	Black Non-Fibrous Heterogeneous	15% Synthetic	85% Non-fibrous (other)	None Detected
CR-068-Cove Base 261204015-0068	TURBINE BLDG VINYL BASEBOARD	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-068-Mastic 261204015-0068A	TURBINE BLDG VINYL BASEBOARD	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-069-Cove Base 261204015-0069	TURBINE BLDG VINYL BASEBOARD	Brown Non-Fibrous Homogeneous		100% Non-tibrous (other)	None Detected
CR-069-Mastic 261204015-0069A	TURBINE BLDG VINYL BASEBOARD	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-070-Cove Base 261204015-0070	TURBINE BLDG VINYL BASEBOARD	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-070-Mastic 261204015-0070A	TURBINE BLDG VINYL BASEBOARD	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-071 261204015-0071	TURBINE BLDG VIORATICHDAMP ENING CLOTH	Tan Fibrous Homogeneous	100% Cellulose	0% Non-fibrous (other)	None Detected

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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

				Non-A	<u>sbestos</u>	(7/)	<u>Asbe</u>	<u>estos</u>
Sample	Description	Appearance	%	Fibrous	% Non-Fibro	ous	% Ty	pe
CR-072	TURBINE BLDG	Tan	100%	Cellulose	0% Non-f	ibrous (other)	N	Ione Detected
261204015-0072	VIORATICHDAMP ENING CLOTH	Fibrous Homogeneous		<u> </u>	5			
CR-073	TURBINE BLDG	Black	160%	6 Cellulose	0% Non-f	ibrous (other)	N	Ione Detected
261204015-0073	VIORATICHDAMP ENING CLOTH	Fibrous Homogeneous				63		Á
CR-074	TURBINE BLDG	Green		12	95% Non-f	ibrous (other)	5% C	hrysotile
261204015-0074	FLOOR TILE	Non-Fibrous Heterogeneous	\$					
CR-075	TURBINE BLDG		C		$\langle 0 \rangle$	\ \ \ \	Stop Po	sitive (Not Analyzed)
261204015-0075	FLOOR TILE						.V	
CR-076	TURBINE BLOG	57 474	<u> </u>				Stop Po	sitive (Not Analyzed)
261204015-0076	FLOOR TILE							
CR-077-Floor Tile	TURBINE BLDG	Gray	44	707	93% Non-f	ibrous (other)	7% C	hrysotile
261204015-0077	FLOORTILE	Non-Fibrous Homogeneous	~C	5		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		
CR-077-Mastic	TURBINE BLDG	Black	(7)	(O ₁)	98% Non-f	ibrous (other)	2% C	hrysotile
261204015-0077A	FLOOR TILE	Non-Fibrous Homogeneous			VV			
CR-078	TURBINE BLDG			9/			Stop Po	sitive (Not Analyzed)
261204015-0078	FLOOR TILE			~				

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Project: **0168420**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbe	estos (Q/)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-079	TURBINE BLDG				Stop Positive (Not Analyzed)
261204015-0079	FLOOR TILE				
CR-080-Joint	SWITCHHOUSE	White		100% Non-fibrous (other)	None Detected
Compound	& TURBINE BLDG DRYWALL	Non-Fibrous	1 ~ ~ (2)		
261204015-0080	BEDG BICTWALE	Homogeneous			4
CR-080-Drywall	SWITCHHOUSE	White		100% Non-fibrous (other)	None Detected
261204015-0080A	& TURBINE BLDG DRYWALL	Non-Fibrous Heterogeneous			
CR-081	SWITCHHOUSE	White	10% Cellulose	90% Non-librous (other)	None Detected
261204015-0081	& TURBINE BLDG DRYWALL	Non-Fibrous Heterogeneous			\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
CR-082	SWITCHHOUSE	White	10% Glass	80% Non-fibrous (other)	None Detected
261204015-0082	& TURBINE BLDG DRXWALL	Non-Fibrous	10% Cellulose		
	BLDG BILLMALL	Heterogeneous	Two sample pags labeled 82.	5 (6)	
CR-082	TURBINE BLDG	Brown	20° (J)	90% Non-fibrous (other)	10% Chrysotile
261204015-0083	PIRE / INSULATION	Non-Fibrous			
	INCOEM TON	Heterogeneous	Two sample bags labeled 82.	497	
CR-083	TURBINE BLDG	40	2,		Stop Positive (Not Analyzed)
261204015-0084	PIPE INSULATION		V		

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			Non-Asbes	itos (7)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-084 261204015-0085	TURBINE BLDG PIPE INSULATION				Not Submitted
CR-085 261204015-0086	TURBINE BLDG & SWITCHHOUSE PIPE FTTING INSULATION	Brown/White Fibrous Heterogeneous	30% Hair 5% Synthetic	35% Non-fibrous (other)	30% Chrysotile
CR-086 261204015-0087	TURBINE BLDG & SWITCHHOUSE PIPE FTTING INSULATION				Stop Positive (Not Analyzed)
CR-087 261204015-0088	TURBINE BLDG & SWITCHHOUSE PIPE FTTING INSULATION				Stop Positive (Not Analyzed)
CR-088-Floor Tile 261204015-0089	SWITCHHOUSE FLOOR TILE	Brown/Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-088-Mastic 261204015-0089A	SWITCHHOUSE FLOOR TILE	Black Non-Fibrous Homogeneous		97% Non-fibrous (other)	3% Chrysotile
CR-089-Floor Tile 261204015-0090	SWITCHHOUSE FLOOR TILE	Brown/Tan Non-Fibrous Homogeneous		400% Non-fibrous (other)	None Detected

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			Non-Ask	oestos (Q/)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-089-Mastic	SWITCHHOUSE FLOOR TILE				Stop Positive (Not Analyzed)
201204015-0090A					
CR-090-Floor Tile	SWITCHHOUSE	Brown/Tan		100% Non-fibrous (other)	None Detected
261204015-0091	FLOOR TILE	Non-Fibrous Homogeneous			
CR-090-Mastic	SWITCHHOUSE		3/		Stop Positive (Not Analyzed)
261204015-0091A	FLOOR TILE		TO V		
CR-091	BSMT SPRAY-ON	1,1		100% Non-fibrous (other)	None Detected
261204015-0092	INSULATION	Non-Fibrous Heterogeneous	1 0,00		
CR-092	BSMT SPRAY-ON	White		100% Non-fibrous (other)	None Detected
261204015-0093	INSULATION	Non-Fibrous Heterogeneous			
CR-093	BSMT SPRAY-ON	White	401	100% Non-fibrous (other)	None Detected
261204015-0094	INSULATION	Non-Fibrous Heterogeneous			
CR-094	BSMT SPRAY-ON	White (100% Non-fibrous (other)	None Detected
261204015-0095	INSULATION	Non-Fibrous Heterogeneous		1/4 /h	
CR-095	BSMT SPRAY-ON	l White	40V7	100% Non-fibrous (other)	None Detected
261204015-0096	INSULATION	Non-Fibrous Heterogeneous		<u>0</u>	
			//	\	

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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbes	itos (Q))	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-096	BSMT SPRAY-ON	White		100% Non-fibrous (other)	None Detected
261204015-0097	INSULATION	Non-Fibrous Heterogeneous			
CR-097	BSMT SPRAY-ON	White		100% Non-fibrous (other)	None Detected
261204015-0098	INSULATION	Non-Fibrous Heterogeneous			AL.
CR-098-Cove Base		Black		100% Non-fibrous (other)	None Detected
261204015-0099	BLDG VINYL BASEBOARD & MASTIC	Non-Fibrous Homogeneous			₩ ₩
CR-098-Mastic	1ST FL TURBINE	Yellow		100% Non-librous (other)	None Detected
261204015-0099A	BLDG VINYL BASEBOARD & MASTIC	Non-Fibrous Homogeneous			
CR-099-Cove Base	- //	Black		106% Non-fibrous (other)	None Detected
261204015-0100	BLDG VINYL BASEBOARD & MASTIC	Non-Fibrous Homogeneous			
CR-099-Mastic	1ST FL TURBINE	Yellow		100% Non fibrous (other)	None Detected
261204015-0100A	BLDG VINYL BASEBOARD & MASTIC	Non-Fibrous Homogeneous			
CR-100-Cove Base		Black	<u> </u>	100% Non-fibrous (other)	None Detected
261204015-0101	BLDG VINYL BASEBOARD & MASTIC	Non-Fibrous Homogeneous		2) v	

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Fax: (847) 258-8901
Received: 06/21/12 3:14 PM
Analysis Date: 6/26/2012
Collected:

Project: **0168420**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	Description	Appearance		% Non-Fibrous	% Type
CR-100-Mastic 261204015-0101A	1ST FL TURBINE BLDG VINYL BASEBOARD & MASTIC	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-101-Floor Tile 261204015-0102	TURBINE BLDG FLOOR TILE & MASTIC	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-101-Mastic 261204015-0102A	TURBINE BLDG FLOOR TILE & MASTIC	Black Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
CR-102-Floor Tile 261204015-0103	TURBINE BLDG FLOOR TILE & MASTIC	White Non-Fibrous Homogeneous		100% Non-librous (other)	None Detected
CR-102-Mastic 261204015-0103A	TURBINE BLOG FLOOR TILE & MASTIC	7		Day Con	Stop Positive (Not Analyzed)
CR-103-Floor Tile 261204015-0104	TURBINE BLDG FLOOR-TILE & MASTIC	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-103-Mastic 261204015-0104A	TURBINE BLDG FLOOR TILE & MASTIC				Stop Positive (Not Analyzed)
CR-104 261204015-0105	SWITCHHOUSE EXTERIOR WINDOW CAULK	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)

Alice Hillegass (141) Dahlia Zyhowski (34) Nick Neu (78)

James Hahn, Laboratory Manager or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Chicago, IL NVLAP Lab Code 200399-0, TX 300289



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				<u>Non-Asbestos</u>	(9/)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibr	ous	% Type
CR-105	SWITCHHOUSE	Gray	6	100% Non-	fibrous (other)	<1% Chrysotile
261204015-0106	EXTERIOR WINDOW CAULK	Non-Fibrous Heterogeneous			70	
CR-106	SWITCHHOUSE				9	Not Submitted
261204015-0107	EXTERIOR WINDOW CAULK				63	
CR-107	BSMT TURBINE	White	3/	40% Non-	fibrous (other)	60% Chrysotile
261204015-0108	& SWITCHHOUSE	Fibrous	(10)			
	THERMAL INSULATION	Heterogeneous				<u>></u>
CR-108	BSMT TURBINE	(0) N 4	12	0,407	y ZV	Stop Positive (Not Analyzed)
261204015-0109	& SWITCHHOUSE	2.90	27			
	THERMAL INSULATION					
CR-109	BSMT TURBINE		4500			Stop Positive (Not Analyzed)
261204015-0110	& SWITCHHOUSE THERMAL INSULATION	((
CR-110-Floor Tile	TURBINE BLDG	Tan/Copper	> (6	100% Non-	fibrous (other)	None Detected
261204015-0111	FLOOR TILE & MASTIC	Non-Fibrous Homogeneous	9/2			
CR-110-Mastic	TURBINE BLDG	White		100% Non-	fibrous (other)	None Detected
261204015-0111A	FLOOR TILE & MASTIC	Non-Fibrous Homogeneous				
				$\langle \alpha \rangle$		

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			Non-As	<u>Destos</u>	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-111-Floor Tile	TURBINE BLDG	Tan/Copper		100% Non-fibrous (other)	None Detected
261204015-0112	FLOOR TILE & MASTIC	Non-Fibrous Homogeneous			
CR-111-Mastic	TURBINE BLDG	White		100% Non-fibrous (other)	None Detected
261204015-0112A	FLOOR TILE & MASTIC	Non-Fibrous Homogeneous			
CR-112-Floor Tile	TURBINE BLDG	Tan		100% Non-fibrous (other)	None Detected
261204015-0113	FLOOR TILE & MASTIC	Non-Fibrous Homogeneous			<u> </u>
CR-112-Mastic	TURBINE BLDG	Gray		100% Non-fibrous (other)	None Detected
261204015-0113A	FLOOR TILE & MASTIC	Non-Fibrous Hornogeneous			7
CR-113-Cove Base	- ///-	Red		100%, Non-fibrous (other)	None Detected
261204015-0114	VINYL BASEBOARD & MASTIC	Non-Fibrous Homogeneous			
CR-113-Mastic	TURBINE BLDG	Yellow		100% Non-fibrous (other)	None Detected
261204015-0114A	VÍNYL BASEBOARD & MASTIC	Non-Fibrous Homogeneous			
CR-114-Cove Base		Red		100% Non-fibrous (other)	None Detected
261204015-0115	VINYL BASEBOARD & MASTIC	Non-Fibrous Homogeneous			
			<u> </u>	(6)	

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			Non-Asbe	estos (OZ)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-114-Mastic	TURBINE BLDG VINYL	Yellow Non-Fibrous		100% Non-fibrous (other)	None Detected
261204015-0115A	BASEBOARD & MASTIC	Homogeneous			
CR-115-Cove Base		Red		100% Non-fibrous (other)	None Detected
261204015-0116	VINYL BASEBOARD & MASTIC	Non-Fibrous Homogeneous			
CR-115-Mastic	TURBINE BLDG	Yellow	(10) b	100% Non-fibrous (other)	None Detected
261204015-0116A	VINYL BASEBOARD & MASTIC	Non-Fibrous Homogeneous			<u>}</u>
CR-116-Sub Floor	TURBINE BLDG	Gray		100% Non-fibrous (other)	None Detected
261204015-0117	CONCRETE SUB- FLOOR	Non-Fibrous Heterogeneous			
CR-116-Mastic	TURBINE BLOG	Blue		100% Non-fibrous (other)	None Detected
261204015-0117A	CONCRETE SUB FLOOR	Non-Fibrous Homogeneous		9° , 6	
CR-117-Sub Floor	TURBINE BLDG CONCRETE SUB	Gray		100% Non fibrous (other)	None Detected
261204015-0118	FLOOR	Non-Fibrous Heterogeneous			
CR-117-Mastic	TURBINE BLDG	Blue	2, 00	100% Non-fibrous (other)	None Detected
261204015-0118A	CONCRETE SUB FLOOR	Non-Fibrous Homogeneous	V		

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			Non-Asb	estos (7/)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-118-Sub-Floor		Gray		100% Non-fibrous (other)	None Detected
261204015-0119	CONCRETE SUB FLOOR	Non-Fibrous Heterogeneous			
CR-118-Mastic	TURBINE BLDG	Blue		100% Non-fibrous (other)	None Detected
261204015-0119A	CONCRETE SUB FLOOR	Non-Fibrous Homogeneous			AL
CR-119	SWITCHGEAR	Red/Black	3	80% Non-fibrous (other)	20% Chrysotile
261204015-0120	SHEET FLOORING	Non-Fibrous Heterogeneous			
CR-120	SWITCHGEAR				Stop Positive (Not Analyzed)
261204015-0121	SHEET FLOORING				<i>y</i>
CR-121	SWITCHGEAR	57 9,40			Stop Positive (Not Analyzed)
261204015-0122	SHEET FLOORING				
CR-122	TURBINE BLDG	Gray	40% Cellulose	20% Non-fibrous (other)	None Detected
261204015-0123	CEILING TÎLE	Fibrous Heterogeneous	40% Min. Wool	Vi Si	
CR-123	TURBINE BLDG	Gray (7/40% Cellulose	20% Non-fibrous (other)	None Detected
261204015-0124	CEILING TILE	Fibrous Heterogeneous	40% Min. Wool	N. N.	
CR-124	TURBINE BLDG	Gray	40% Cellulose	20% Non-fibrous (other)	None Detected
261204015-0125	CEILING TILE	Fibrous Heterogeneous	40% Min. Wool	9	

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				Non-Asbes	stos (O/J)	<u>Asbestos</u>
Sample	Description	Appearance	% F	ibrous	% Non-Fibrous	% Type
CR-125 261204015-0126	SWITCHGEAR ROOM TRANSITE	Gray Fibrous	200		70% Non-fibrous (other)	30% Chrysotile
	PANELS	Heterogeneous	(D))			
CR-126	SWITCHGEAR			~~(0)		Stop Positive (Not Analyzed)
261204015-0127	ROOM TRANSITE PANELS		\ <u>\</u>			
CR-127	SWITCHGEAR	0,00	(4)	707 V		Stop Positive (Not Analyzed)
261204015-0128	ROOM TRANSITE PANELS					
CR-128	SWITCHGEAR ROOMS	Gray/Black	31	0/01	100% Non-fibrous (other)	None Detected
261204015-0129	CEMENT WALL COVERING	Non-Fibrous Heterogeneous	^{حور ح}			
CR-129	SWITCHGEAR	Gray/Black	0,4	70)	100% Non-fibrous (other)	None Detected
261204015-0130	ROOMS CEMENT WALL COVERING	Non-Fibrous Heterogeneous				
CR-130	SWITCHGEAR	Gray/Black	W)		100% Non-fibrous (other)	None Detected
261204015-0131	ROOMS CEMENT WALL COVERING	Non-Fibrous Heterogeneous	\$```\			
CR-131	SWITCHGEAR	Gray/Black		V	100% Non-fibrous (other)	None Detected
261204015-0132	ROOMS CEMENT WALL COVERING	Non-Fibrous Heterogeneous			<u>)</u>	

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			Non-As	<u>bestos</u>	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-132	SWITCHGEAR	Gray		100% Non-fibrous (other)	None Detected
261204015-0133	ROOMS CEMENT WALL COVERING	Non-Fibrous Heterogeneous			
CR-133	SWITCHGEAR	Gray		100% Non-fibrous (other)	None Detected
261204015-0134	ROOMS CEMENT WALL COVERING	Non-Fibrous Heterogeneous		OF THE STATE OF TH	
CR-134	SWITCHGEAR	Gray C	(10) V	100% Non-fibrous (other)	None Detected
261204015-0135	ROOMS CEMENT WALL COVERING	Non Fibrous Hererogeneous			<u>}</u>
CR-135	CRIB HOUSE	Brown	40% Cellulose	40% Non-fibrous (other)	None Detected
261204015-0136	SPRAY-ON INSULATION	Fibrous Heterogeneous	20% Glass		
CR-136	CRIB HOUSE	Brown	40% Cellulose	40% Non-fibrous (other)	None Detected
261204015-0137	SPRAY-ON INSULATION	Fibrous Heterogeneous	20% Glass		
CR-137	CRIB HOUSE	Brown	40% Cellulose	40% Non fibrous (other)	None Detected
261204015-0138	SPRAY-ON INSULATION	Fibrous Heterogeneous	20% Glass		
CR-138	CRIB HOUSE	Brown	40% Cellulose	40% Non-fibrous (other)	None Detected
261204015-0139	SPRAY-ON INSULATION	Fibrous Heterogeneous	20% Glass		

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		<u>Non-Asbestos</u>		estos (O/J)	(O/) Asbestos	
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type	
CR-139	CRIB HOUSE	Brown	40% Cellulose	40% Non-fibrous (other)	None Detected	
261204015-0140	SPRAY-ON INSULATION	Fibrous Heterogeneous	20% Glass	900		
CR-140	CRIB HOUSE	Brown	40% Cellulose	40% Non-fibrous (other)	None Detected	
261204015-0141	SPRAY-ON INSULATION	Fibrous Heterogeneous	20% Glass			
CR-141	CRIB HOUSE	Brown	40% Cellulose	40% Non-fibrous (other)	None Detected	
261204015-0142	SPRAY-ON INSULATION	Fibrous Heterogeneous	20% Min. Wool		<u> </u>	
CR-142	CRIB HOUSE				Insufficient Material	
261204015-0143	INTERIOR WINDOW CAULK				7	
CR-143	CRIB HOUSE	White	No caulking found to be present i	in sample. Bag contained only debris. 100% Non-fibrous (other)	None Detected	
	INTERIOR	Non-Fibrous		100% Non-librous (bliver)	None Detected	
261204015-0144	WINDOW CAULK	Homogeneous	0,907			
CR-144	CRIB HOUSE	White		100% Non-fibrous (other)	None Detected	
261204015-0145	INTERIOR WINDOW CAULK	Non-Fibrous Homogeneous				
CR-145	CRIB HOUSE	Black		100% Non-fibrous (other)	None Detected	
261204015-0146	EXTERIOR WINDOW CAULK	Non-Fibrous Homogeneous				
CR-146	CRIB HOUSE	White/Black	V	100% Non-fibrous (other)	None Detected	
261204015-0147	EXTERIOR WINDOW CAULK	Non-Fibrous Heterogeneous				

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			Non-As	sbestos (7/)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-147	CRIB HOUSE	Black		100% Non-fibrous (other)	None Detected
261204015-0148	EXTERIOR WINDOW CAULK	Non-Fibrous Homogeneous			
CR-148	BOILER ROOM	Brown		60% Non-fibrous (other)	20% Chrysotile
261204015-0149	BOILER INSULATION	Fibrous Heterogeneous			20% Amosite
CR-149	BOILER ROOM		3/		Stop Positive (Not Analyzed)
261204015-0150	BOILER INSULATION				
CR-150	BOILER ROOM		(S) (Stop Positive (Not Analyzed)
261204015-0151	BOILER INSULATION				V.
CR-151	BOILER ROOM	Gray	75% Min. Wooi	21% Non-fibrous (other)	4% Chrysotile
261204015-0152	BOILER INSULATION	Fibrous Heterogeneous			
CR-152	BOILER ROOM		401	(a)	Stop Positive (Not Analyzed)
261204015-0153	BOILÉR INSULATION				
CR-153	BOILER ROOM				Stop Positive (Not Analyzed)
261204015-0154	BOILER INSULATION				
CR-154	BOILER ROOM	Brown	50% Min. Wool	40% Non-fibrous (other)	10% Chrysotile
261204015-0155	BOILER INSULATION	Fibrous Heterogeneous			

Analyst(s)

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Collected:

Project: **0168420**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asi	<u>Destos</u>	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-155 261204015-0156	BOILER ROOM BOILER INSULATION				Stop Positive (Not Analyzed)
CR-156 261204015-0157	BOILER ROOM BOILER INSULATION				Stop Positive (Not Analyzed)
CR-157 261204015-0158	BOILER ROOM INSULATION	Gray Fibrous Heterogeneous		50% Non-fibrous (ether)	50% Chrysotile
CR-158 261204015-0159	BOILER ROOM INSULATION	(1)			Stop Positive (Not Analyzed)
CR-159 261204015-0160	BOILER ROOM INSULATION				Stop Positive (Not Analyzed)
CR-160 261204015-0161	EXTERIOR CORRUGATED GALBESTOS	Red Non-Fibrous Heterogeneous	1 E C	70% Non-fib ous (other)	30% Chrysotile
CR-161 261204015-0162	EXTERIOR CORRUGATED GALBESTOS				Stop Positive (Not Analyzed)
CR-162 261204015-0163	EXTERIOR CORRUGATED GALBESTOS		W.		Stop Positive (Not Analyzed)

Analyst(s)

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Project: **0168420**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Ast	oestos (7/)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-163 261204015-0164	EXTERIOR CORRUGATED GALBESTOS				Stop Positive (Not Analyzed)
CR-164 261204015-0165	EXTERIOR CORRUGATED GALBESTOS	Bu.			Stop Positive (Not Analyzed)
CR-165 261204015-0166	EXTERIOR CORRUGATED GALBESTOS				Stop Positive (Not Analyzed)
CR-166 261204015-0167	EXTERIOR CORRUGATED GALBESTOS				Stop Positive (Not Analyzed)
CR-167 261204015-0168	CONTROL ROOM CEILING TILE	White Fibrous Heterogeneous	40% Cellulose 40% Min. Wool	20% Non-fibrous (other)	None Detected
CR-168 261204015-0169	CONTROL ROOM CEILING TILE	White Fibrous Heterogeneous	40% Cellulose 40% Min. Wool	20% Non-fib ous (other)	None Detected
CR-169 261204015-0170	CONTROL ROOM CEILING TILE	White Fibrous Heterogeneous	40% Cellulose 40% Min. Woot)	20% Non-fibrous (other)	None Detected
CR-170 261204015-0171	BSMT TURBINE ROOM HOUSING INSULATION	Gray Non-Fibrous Heterogeneous		90% Non-fibrous (other)	10% Chrysotile

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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-As	bestos (7//)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-171 261204015-0172	BSMT TURBINE ROOM HOUSING INSULATION				Stop Positive (Not Analyzed)
CR-172 261204015-0173	BSMT TURBINE ROOM HOUSING INSULATION				Stop Positive (Not Analyzed)
CR-173 261204015-0174	LEVEL 2 FAN FLOOR TRANSITE PANEI	Gray Non-Fibrous Heterogeneous		75% Non-fibrous (ether)	25% Chrysotile
CR-174 261204015-0175	LEVEL 2 FAN FLOOR TRANSITE PANEI	-05			Stop Positive (Not Analyzed)
CR-175 261204015-0176	LEVEL 2 FAN FLOOR TRANSITE PANE				Stop Positive (Not Analyzed)
CR-176 261204015-0177	BOILER ROOM WINDOW GLAZING INTERIOR	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-177 261204015-0178	BOILER ROOM WINDOW GLAZING INTERIOR	Gray Non-Fibrous Homogeneous		97% Non-fibrous (other)	3% Chrysotile
CR-178 261204015-0179	BOILER ROOM WINDOW GLAZING INTERIOR				Stop Positive (Not Analyzed)

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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Non-Asbestos <u>Asbestos</u> Sample Description **Appearance Fibrous** % Non-Fibrous % Type **BOILER HOUSE** 100% Non-fibrous (other) CR-179-Skim Coat **None Detected** White PLASTER Non-Fibrous 261204015-0180 Homogeneous **BOILER HOUSE** 100% Non-fibrous (other) None Detected CR-179-Base Coat Grav PLASTER Non-Fibrous 261204015-0180A Heterogeneous White CR-180-Skim Coat **BOILER HOUSE** 100% Non-fibrous (other) None Detected **PLASTER** Non-Fibrous 261204015-0181 Homogeneous CR-180-Base Coat **BOILER HOUSE** 100% Non-fibrous (other) None Detected Gray **PLASTER** Non-Fibrous 261204015-0181A Heterogeneous BOILER HOUSE 100% Non-fibrous (other) CR-181-Skim Coat White **None Detected** PLASTER Non-Fibrous 261204015-0182 Homogeneous 100% Non-fibrous (other) CR-181-Base Coat BOILER HOUSE None Detected Gray PLASTER Non-Fibrous 261204015-0182A Heterogeneous None Detected CR-182 **BOILER HOUSE** White Cellulose 90% Non-fibrous (other) PLASTER Non-Fibrous 261204015-0183 Heterogeneous 100% Non-fibrous (other) CR-183-Skim Coat **BOILER HOUSE** White **None Detected** PLASTER Non-Fibrous 261204015-0184 Homogeneous

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Rolling Meadows, IL 60006

Project: **0168420**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Q NO	<u>on-Asbestos</u>	(<i>9</i> / <i>)</i> As	<u>sbestos</u>
ample	Description	Appearance	% Fibrous	% Non-Fibrous	%	Туре
CR-183-Base Coat	BOILER HOUSE	Gray	<u></u>	100% Non-fibro	is (other)	None Detected
261204015-0184A	PLASTER	Non-Fibrous Heterogeneous			>	
CR-184-Skim Coat	BOILER HOUSE	White	3	100% Non-fibrou	us (other)	None Detected
261204015-0185	PLASTER	Non-Fibrous Homogeneous			63	AL.
CR-184-Base Coat	BOILER HOUSE	Gray	(2)	100% Non-fibrou	us (Other)	None Detected
261204015-0185A	PLASTER	Non-Fibrous Heterogeneous				\$
CR-185-Skim Coat	BOILER HOUSE	White		100% Non-fibro	is (other)	None Detected
261204015-0186	PLASTER	Non-Fibrous Hornogeneous				
CR-185-Base Coat	BOILER HOUSE	Gray		100% Non-fibrou	us (other)	None Detected
261204015-0186A	PLASTER	Non-Fibrous Heterogeneous			, 2/2/	
CR-186	BOILER HOUSE	White		100% Non-fibrou	(s)(other)	None Detected
261204015-0187	PLASTER	Non-Fibrous Heterogeneous			>	
CR-187	2ND FL	White	20% Min. Wo	ol 30% Non-fibrou	us (other) 50%	Chrysotile
261204015-0188	LOCKERROOM BOILER HOUSE	Fibrous				
	DUCT INSULATION	Heterogeneous				
		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	*			

Analyst(s)

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Meadows, IL 60008

Project: **0168420**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbe	estos (OD)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-188 261204015-0189	2ND FL LOCKERROOM BOILER HOUSE DUCT INSULATION	<i>A</i>			Stop Positive (Not Analyzed)
CR-189 261204015-0190	2ND FL LOCKERROOM BOILER HOUSE DUCT INSULATION				Stop Positive (Not Analyzed)
CR-190-Floor Tile 261204015-0191	BOILER HOUSE FLOOR TILE	Gray Non Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-190-Mastic 261204015-0191A	BOILER HOUSE FLOOR TILE	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-191-Floor Tile 261204015-0192	BOILER HOUSE FLOOR TILE	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-191-Mastic 261204015-0192A	BOILER HOUSE FLOOR TILE	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-192-Floor Tile 261204015-0193	BOILER HOUSE FLOOR TILE	Gray Non-Fibrous Homogeneous	(V)	100% Non-fibrous (other)	None Detected
			//		

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Analysis Date: 6/26/2012

Collected:

Project: 0168420

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

				Non-As	<u>sbestos</u>	(7/)	<u>Asbestos</u>
Sample	Description	Appearance	%	Fibrous	% Non-Fibrous		% Type
CR-192-Mastic	BOILER HOUSE	Black	(2	100% Non-fibrou	is (other)	None Detected
261204015-0193A	FLOOR TILE	Non-Fibrous Homogeneous		<u> </u>		>	
CR-193	BOILER HOUSE	White			100% Non-fibrou	us (other)	None Detected
261204015-0194	DRYWALL	Non-Fibrous Homogeneous				63	
CR-194	BOILER HOUSE	White		12	100% Non-fibrou	us (Other)	None Detected
261204015-0195	DRYWALL	Non-Fibrous Homogeneous					
CR-195	BOILER HOUSE	White			100% Non-fibro	us (other)	None Detected
261204015-0196	DRYWALL	Non-Fibrous Hornogeneous		0.0			>
CR-196	BOILER HOUSE	White	20%	Cellulose	20% iVon-fibrou	us (other)	None Detected
261204015-0197	CEILING TILE	Fibrous Heterogeneous	60%	Min. Wool			
CR-197	BOILER HOUSE	White	20%	Cellulose	20% Non-fibrou	s (other)	None Detected
261204015-0198	CEALING TILE	Fibrous Heterogeneous	60%	Min. Wool	Vi Sy	>	
CR-198	BOILER HOUSE	White	20%	Cellulose	20% Non-fibrou	us (other)	None Detected
261204015-0199	CEILING TILE	Fibrous Heterogeneous	60%	Min. Wool			
CR-199-Floor Tile	BOILER HOUSE	Gray			100% Non-fibrou	us (other)	None Detected
261204015-0200	FLOOR TILE	Non-Fibrous Homogeneous		·			

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An-Asbestos

Project: **0168420**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-ASDE	(0//)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-199-Mastic 261204015-0200A	BOILER HOUSE FLOOR TILE	Brown Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
CR-200-Floor Tile 1 261204015-0201	BOILER HOUSE FLOOR TILE	Gray Non-Fibrous Homogeneous	Insufficient mastic material.	100% Non-fibrous (other)	None Detected
CR-200-Floor Tile 2 261204015-0201A	BOILER HOUSE FLOOR TILE	Tan Non-Eibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-200-Mastic 261204015-0201B	BOILER HOUSE FLOOR TILE	Black Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
CR-201-Floor Tile 261204015-0202	BOILER HOUSE FLOOR TILE	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-201-Mastic 261204015-0202A	BOILER HOUSE FLOOR TILE				Stop Positive (Not Analyzed)
CR-202-Floor Tile 261204015-0203	BOILER HOUSE FLOOR TILE	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CR-202-Mastic 261204015-0203A	BOILER HOUSE FLOOR TILE	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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			NO.	<u>n-Asbestos</u>	(42)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrou	IS	% Type
CR-203-Floor Tile	BOILER HOUSE	Beige	6	100% Non-fib	rous (other)	None Detected
261204015-0204	FLOOR TILE	Non-Fibrous Homogeneous				
CR-203-Mastic	BOILER HOUSE	Yellow	3	100% Non-fibi	rous (other)	None Detected
261204015-0204A	FLOOR TILE	Non-Fibrous Homogeneous			63	AL
CR-204-Floor Tile	BOILER HOUSE	Beige	3	190% Non-fib	rous (other)	None Detected
261204015-0205	FLOOR TILE	Non-Fibrous Homogeneous				<u> </u>
CR-204-Mastic	BOILER HOUSE	Yellow		100% Non-fibi	rous (other)	None Detected
261204015-0205A	FLOOR TILE	Non-Fibrous Hornogeneous				
CR-205	BOILER HOUSE	White	60% Cellulos	e 20% Non-fibi	rous (other)	None Detected
261204015-0206	CEILING TILE	Fibrous Heterogeneous	20% Min. Wo	ol Sol		
CR-206	BOILER HOUSE	White	60% Cellulose	e 20% Non-fib	rous (other)	None Detected
261204015-0207	CEALING TILE	Fibrous Heterogeneous	20% Min. Wo	ol Ore		
CR-207	BOILER HOUSE	White	60% Cellulos	. /// / / / / / / / / / / / / / / / / /	rous (other)	None Detected
261204015-0208	CEILING TILE	Fibrous Heterogeneous	20% Min. Wo	oly A Th		
CR-208	EXTERIOR	Tan		97% Non-fib	rous (other) 3	% Chrysotile
261204015-0209	BOILER HOUSE WINDOW CAULK	Non-Fibrous Homogeneous	*			

Analyst(s)

Alice Hillegass (141) Dahlia Zyhowski (34) Nick Neu (78)

James Hahn, Laboratory Manager or other approved signatory

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Fax: (847) 258-8901
Received: 06/21/12 3:14 PM
Analysis Date: 6/26/2012

Collected:

Project: **0168420**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

				Non-As	bestos (V/)	<u>Asbestos</u>
Sample	Description	Appearance	%	Fibrous	% Non-Fibrous	% Type
CR-209	EXTERIOR		(2		Stop Positive (Not Analyzed)
261204015-0210	BOILER HOUSE WINDOW CAULK		3			
CR-210	EXTERIOR				\$ 0°0	Stop Positive (Not Analyzed)
261204015-0211	BOILER HOUSE WINDOW CAULK		\			
CR-211	BOILER HOUSE	Various	90%	Glass	10% Non-fibrous (other)	None Detected
261204015-0212	VIBRATION DAMPENER CASKET	Fibrous Heterogeneous				
CR-212	BOILER HOUSE	Yellow	95%	Glass	5% Non-fibrous (other)	None Detected
261204015-0213	VIBRATION DAMPENER CASKET	Fibrous Heterogeneous	3/	2/0		5
CR-213	BOILER HOUSE	Various	95%	Glass	5% Non-fibrous (other)	None Detected
261204015-0214	VIBRATION DAMPENER CASKET	Fibrous Heterogeneous				
CR-214	WWTP TANK	White	25%	Min. Wool	75% Non-fibrous (other)	None Detected
261204015-0215	INSULATION	Non-Fibrous Heterogeneous	7		5, (2)	
CR-215	WWTP TANK	White	25%	6 Min Wool	75% Non-fibrous (other)	None Detected
261204015-0216	INSULATION	Non-Fibrous Heterogeneous		(N)	S	

Analyst(s)

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Received: 06/21/12 3:14 PM
Analysis Date: 6/26/2012

Collected:

Project: 0168420

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbest	os (OZ)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-216	WWTP TANK	White	25% Min. Wool	75% Non-fibrous (other)	None Detected
261204015-0217	INSULATION	Non-Fibrous Heterogeneous			
CR-217	WWTP	Tan		100% Non-fibrous (other)	None Detected
261204015-0218	INTERIOR WINDOW CAULK	Non-Fibrous Homogeneous			
CR-218	WWTP	Tan		100% Non-fibrous (other)	None Detected
261204015-0219	INTERIOR WINDOW CAULK	Non-Fibrous Homogèneous			
CR-219	WWTP	Tan:	(0)	100% Non-fibrous (other)	None Detected
261204015-0220	INTERIOR WINDOW CAULK	Non-Fibrous Hornogeneous			7
CR-220	LOCOMOTIVE	Gray		97% Non-fibrous (other)	3% Chrysotile
261204015-0221	HOUSE EXTERIOR WINDOW CAULK	Non-Fibrous Homogeneous	D 07 12		
CR-221	LOCOMOTIVE				Stop Positive (Not Analyzed)
261204015-0222	HOUSE EXTERIOR WINDOW CAULK				
CR-222	LOCOMOTIVE	ر کر ز		N. V.	Stop Positive (Not Analyzed)
261204015-0223	HOUSE EXTERIOR WINDOW CAULK			9/	

Analyst(s)

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Fax: (847) 258-8901
Received: 06/21/12 3:14 PM
Analysis Date: 6/26/2012

Collected:

Project: **0168420**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

			Non-Asbe	estos (Q/)	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
CR-223	COAL PLANT	White	50% Cellulose	20% Non-fibrous (other)	None Detected
261204015-0224	OFFICE CEILING TILE	Fibrous Heterogeneous	30% Min. Wool		
CR-224	COAL PLANT	White	50% Cellulose	20% Non-fibrous (other)	None Detected
261204015-0225	OFFICE CEILING TILE	Fibrous Heterogeneous	30% Min. Wool		
CR-225	COAL PLANT	White	50% Cellulose	20% Non-fibrous (other)	None Detected
261204015-0226	OFFICE CEILING TILE	Fibrous Heterogeneous	30% Min. Wool		<u> </u>
CR-226-Floor Tile	GUARD SHACK	Gray		100% Non-fibrous (other)	None Detected
261204015-0227	FLOOR TILE	Non-Fibrous Hornogeneous			7
CR-226-Mastic	GUARD SHACK	Yellow		100% Non-fibrous (other)	None Detected
261204015-0227A	FLOOR TILE	Non-Fibrous Homogeneous			
CR-227-Floor Tile	GUARD SHACK	Gray		100% Non-fibrous (other)	None Detected
261204015-0228	FLOORTILE	Non-Fibrous Homogeneous			
CR-227-Mastic	GUARD SHACK	Yellow		100% Non-fibrous (other)	None Detected
261204015-0228A	FLOOR TILE	Non-Fibrous Homogeneous			
CR-228-Floor Tile	GUARD SHACK	Gray	4 W	100% Non-fibrous (other)	None Detected
261204015-0229	FLOOR TILE	Non-Fibrous Homogeneous		9 */	

Analyst(s)

Alice Hillegass (141) Dahlia Zyhowski (34) Nick Neu (78)

James Hahn, Laboratory Manager or other approved signatory

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Phone: (847) 258-8900 Fax: (847) 258-8901 06/21/12 3:14 PM Received: Analysis Date: 6/26/2012

Collected:

Project: **0168420**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 and/or EPA 600/M4-82-020 Method(s) using Polarized Light Microscopy

Non-Asbestos **Asbestos** Sample Description **Appearance Fibrous** % Non-Fibrous % Type CR-228-Mastic **GUARD SHACK** 100% Non-fibrous (other) **None Detected** Yellow FLOOR TILE Non-Fibrous 261204015-0229A Homogeneous Analyst(s) Alice Hillegass (141) Nick Neu (78)

James Hahn, Laboratory Manager or other approved signatory

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Initial report from 06/26/2012 13:13:35

Dahlia Zyhowski (34)



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Phone: (847) 258-8900 Fax: (847) 258-8901 Received: 06/29/12 9:34 AM Analysis Date: 7/6/2012

Collected:

Project: **0168420**

Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

FL TILE			FIBERS	TYPES
	Green Non-Fibrous Homogeneous	100	None	No Asbestos Detected
FL TILE	Beige Non-Fibrous Homogeneous	100	None	No Asbestos Detected
FL TILE	Tan Non-Fibrous Homogeneous	100	None	No Asbestos Detected
FL TILE	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
FLTILE	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
FL TILE	Gray Non-Fibrous Homogeneous	100	None	No Asbestos Detected
	FL TILE FL TILE FL TILE	FL TILE Beige Non-Fibrous Homogeneous FL TILE Tan Non-Fibrous Homogeneous FL TILE Gray Non-Fibrous Homogeneous	FL TILE Beige Non-Fibrous Homogeneous FL TILE Tan Non-Fibrous Homogeneous FL TILE Gray Non-Fibrous Homogeneous Turk Tan Non-Fibrous Homogeneous Turk Tan Turk Turk Turk Turk Turk Turk Turk Turk	FL TILE Beige Non-Fibrous Homogeneous FL TILE Tan Non-Fibrous Homogeneous FL TILE Gray 100 None None Non-Fibrous Homogeneous

Analyst(s)

Dahlia Zyhowski (6)

James Hahn, Laboratory Manager or other approved signatory

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Chicago, IL

Initial report from 07/06/2012 10:07:31



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261204015

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Asbestos

Mat Aigner ERM, Inc. **One Continental Tower** 1701 Golf Road, Suite 1-1000 Rolling Meadows, IL 60008

Phone: (847) 258-8900 (847) 258-8901 Fax: Received: 06/29/12 9:34 AM

Analysis Date: 7/6/2012

Non-Asbestos

Collected:

Project: 0168420

Test Report: Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 and/or EPA 600/M4-82-020. Quantitation using 400 Point Count Procedure

				(Non-A	<u>spestos</u>	ASDESTOS
Sample	Description	Appearance	%	Fibrous	% Non-Fibrous	% Type
CR-006 261204015-0230	SWITCHHOUSE PLASTER	Gray Non-Fibrous Heterogeneous			98.25% Non-fibrous (other	1.75% Chrysotile
CR-007 261204015-0231	TURBINE BUILDING PLASTER	Gray Non-Fibrous Heterogeneous	Sample is not	plaster, sample is mo	96.00% Non-fibrous (other)	4.00% Chrysotile
CR-105 261204015-0232	SWITCHHOUSE EXTERIOR WINDOW CAULK	Gray Non-Fibrous Homogeneous			99.00% Non-fibrous (other)	1.00% Chrysotile
CR-177 261204015-0233	BOILER ROOM WINDOW GLAZING INTERIOR	Gray Non Fibrous Homogeneous			98.50% Non-fibrous (other)	i.50% Chrysotile
CR208 261204015-0234	EXTERIOR BOILER HOUSE WINDOW CAULK	Gray Non-Fibrous Homogeneous)		98.00% Non-fibrous (other)	2.00% Chrysotile
CR-220 261204015-0235	LOCOMOTIVE HOUSE EXTERIOR WINDOW CAULK	Gray Non-Fibrous Homogeneous			96.75% Non-ribrous (other)	3.25% Chrysotile
				M. C.	9	

Analyst(s)

Dahlia Zyhowski (6)

James Hahn, Laboratory Manager or other approved signatory

Disclaimer:Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.25%. EMSL Analytical Inc suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval of EMSL Analytical Inc. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical Inc., bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layered samples. EMSL Analytical Inc., liability is limited to the cost of sample analysis. The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Chicago, IL NVLAP Lab Code 200399-0, TX 300289

Initial report from 07/06/2012 10:07:31





GREG A MERRITT

ASBESTOS PROFESSIONAL LICENSE

ID NUMBER 100 - 01759 ISSUED 4/10/2012 **EXPIRES**

05/15/2013

158 TOULON DRIVE **BUFFALO GROVE, IL 60089**

Environmental Health

TC EXPIRES **ENDORSEMENTS**

INSPECTOR

2/1/2013

2/1/2013 2/8/2013

AIR SAMPLING PROFESSIONAL

MANAGEMENT PLANNER

PROJECT MANAGER

Alteration of this license shall result in legal action This license issued under authority of the State of Illinois Department of Public Health

This license is valid only when accompanied by a valid training course certificate.



ASBESTOS RISK ASSESSMENT

FOR

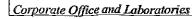
MIDWEST GENERATION CRAWFORD STATION

CHICAGO, ILLINOIS

MARCH 9 THROUGH 15, 2011

PROJECT NUMBER: 11-25185





e-mail: gkehoe@mwgen.com



BATAVIA (CHICAGO), IL. PEORIA, IL. FORT PIERCE, FL. OKLAHOMA CITY, OK

1550 HUBBARD AVE. BATAVIA, ILLINOIS 60510 PHONE: 630.879,3006 FAX: 630.879.3014 WWW.AIRESCONSULTING.COM

April 21, 2011

Mr. Gary Kehoe, CIH Senior Industrial Hygiene Specialist Midwest Generation EME, LLC 235 Remington Blvd. Suite A Bolingbrook, IL 60440

Dear Mr. Kehoe:

Enclosed is a REVISED copy of our report covering the Asbestos Risk Assessment that was conducted on March 9 through 15, 2011, at your Crawford Station located in Chicago, Illinois.

Aires retains electronic files of all reports, correspondence, and data. We do not retain hand written field notes indefinitely. The file which contains the hand written field notes will be destroyed after June 30, 2013. If you would like to retain the field file after this Alres 630/879-3006, date. please contact at E-mail feedback@airesconsulting.com.

If you have any questions, please call me

Sincerely

Joseph F. Murphy, C.H.M.M.

Supervisor – Field Operations and Remediation Service

JFM:rm Enclosure

ASBESTOS SERVICES

COMPUTER BASED

TRAINING

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	9)
	•



INTRODUCTION

Aires Consulting Group conducted an asbestos risk assessment at the Crawford EME, LLC. The assessment was conducted in the areas around the retired unit. The objectives of the survey were as follows:

- Evaluate asbestos content and condition in all areas.
- Conduct an assessment of factors which influence asbestos exposure to MWG personnel and contractor employees.

The assessment was conducted on March 9 through 15, 2011 by Joseph F. Murphy, C.H.M.M. and Jeffrey M. Olson of Aires Consulting Group, Inc. Mr. Murphy is an Illinois licensed asbestos inspector Mr. Geoffrey J. Bacci, M.S., C.I.H. developed the assessment methodology and assisted in the development of this report.

METHODOLOGY

As part of the assessment, bulk samples were collected during the survey. All of the bulk samples were analyzed by polarized light/dispersion staining microscopy by Aires Laboratory. Aires Lab' is accredited by the National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) for bulk asbestos fiber identification. Bulk samples were collected by taking a sample of all layers. In accordance with NVLAP accreditation requirements, all layers were analyzed for asbestos content.

Air flow measurements were collected with a Kurz Instruments Series 490 Mini Anemometer.

The assessment methodology was developed specifically for this site. The methodology considers two broad categories; material and exposure assessment. These factors were used to generate an overall "risk factor" for each "exposure assessment area". A spreadsheet of the risk factors for each exposure assessment area can be found in Appendix I.



Material Assessment Factors

Material assessment considers all factors related to the suspect asbestos containing material (SACM). These factors include the following:

- Asbestos type: "Amphibole" asbestos types such as "Amosite" have the highest risk rating based on their structure and shape. Amphibole types were given a risk rating of "2". Other non-amphibole "serpentine" types such as "Chrysotile" were given a risk rating of "1".
- Asbestos Percent: Higher asbestos content results in higher risk ratings.
 Asbestos < 1% and including trace findings generate a zero hazard ranking. The following risk factor assignments were used based on the percentage of asbestos present:</p>
 - <1% = 0
 - 1 − 5% ⇒ 1
 - 5 20% = 2
 - >20% = 3.
- Material Condition: Material condition rankings range from "Good" to "Significantly Damaged (SD)". "Good' condition refers to homogenous materials which have no visible damage or deterioration or only very little localized damage/deterioration. "Damaged" condition refers to materials that have 10% or less distributed damage/deterioration or 25% or less localized damage/deterioration. "Significantly Damaged" condition refers to materials that have greater than 10% distributed damage/deterioration or greater than 25% localized damage/deterioration. Risk ratings increase with the amount of damage. The following risk factors were assigned based on material condition:
 - Good = 1
 - Damaged = 2
 - Significantly Damaged = 3.



- Air Diffusion: Air flow across SACM generates an increased risk of fiber disruption. Risk factors were determined by measuring air flow. Air flow levels > 100 feet per minute (fpm) are the highest hazard risk. The following risk factor assignments were used based on the airflow speed data collected in the various exposure assessment areas:
 - No (Negative) air flow = 1
 - Greater than 50 fpm = 2
 - Greater than 100 fpm = 3,
- Physical Disruption: Physical disruption is determined by adjacent activities that have the potential to disrupt SACM. Physical disruption could include activities such demolition activities by contractors in adjacent the exposure area or adjacent areas (significant risk) or things such as vibrations from existing plant operating equipment or other physical energy sources (slight risk). The following risk factors were assigned based on Aires observations for potential physical disruption:
 - No Potential = 1
 - Slight Risk ⇒ 2
 - Significant Risk = 3.
- Friability: A "friable" material is crushable with hand pressure. It represents the single biggest factor related to hazard risk of asbestos containing material. Thermal system (TSH) pipe or duct insulation are good examples of friable materials. "Non friable" materials are building materials such floor tile and "transite" cement board. Non-friable materials are assigned a 50% risk to friable materials. The following risk factors were used for the friability:
 - Friable = 1
 - Non-Friable = 2.



Overall material assessment factors are calculated by summing all categories above except friability. The sum of all factors is multiplied by 1 for friable materials and 0.5 for non-friable materials.

Exposure Assessment Factors

There are two (2) exposure assessment factors considered.

"Fiber Migration" is determined by identifying areas where airflow is occurring from areas with damaged and significantly damaged asbestos containing material. The following fiber migration risk factors were utilized for the fiber migration component:

- No Migration = 1
- Air Flow from "Damaged" Area = 2
- Air flow from Significantly Damaged (SD) Area = 3

"Exposure Duration" is the potential for occupant exposure. The following exposure duration risk factors were used:

- No exposure = 1
- Transient = 2
- Occupied < 1 hour = 3
- Occupied > 1 hour = 4

Exposure duration factors consider both current and planned activities. We consider exposure duration one of the most important risk factors.

To calculate over-all hazard rankings, material assessment risk factors are multiplied by exposure risk factors. Hazard rankings can vary from 0 (non asbestos) to 98. The following table represents an <u>example</u> comparison of hazard rankings by general broad classes of risk.



Risk Factor Example Table

Material Assessment	Description	Exposure Assessment	Description	Risk Factor
7	> 20% chrysotile, low risk	2	low risk	14
8	> 20% amphibole, low risk		low risk	16
7	> 20% chrysotile, low risk	7	high risk	49
8	> 20% amphibole, low risk	7	high risk	56
13	> 20% chrysotile, high risk	2	lowrisk	26
14	> 20% amphibole, high risk	2 (Gow risk	28
13	> 20% chrysotile, high risk	7	high risk	91
14	> 20% amphibole, high risk		high risk	98

Like all assessment systems, interpretation is necessary to translate risk factors into potential required corrective actions or emergency environmental release responses. An overall risk factor of > 50 are likely to require corrective actions or abatement activities to reduce the risk. An overall risk factor of < 30 has a lower priority for corrective actions. Risk factor rankings between 30 and 50 need to be more carefully reviewed to determine if corrective actions or responses are necessary.

RESULTS AND RECOMENDATIONS

The results of risk factor assessments are included in Appendix I. Analytical bulk sample results are included in Appendix II. Drawings of assessment areas are included in Appendix III as Figures 1, 2, and 3 for each level assessed respectively. Drawings include bulk sample locations, air flow information and picture identification. Appendix IV includes photographs of material assessment areas. The unique numbers identifying each bulk sample and each photograph in the Appendices can be cross-referenced to the approximate location of that material sample/photo on the drawings.



Air flow readings are included on the assessment sheets. Air flow can be highly variable. We expect seasonal changes in both direction and intensity. Air flow variability was noted during our survey as doors were opened and closed.

There were 27 assessment areas on the three levels survey. Overall risk factors varied between 0 (< 1% asbestos) and 84. From a priority standpoint, risk factor rankings of 60 or above have a significant combination of material condition and exposures risks. These areas would be a priority for corrective action.

On the G-10 Level, there were 14 assessment areas. Four (4) of the areas received a risk factor ranking of 60 or greater. They are as follows:

- Operations /Maintenance Office and Trailer Area. The area above this office has significantly damaged material. There are contractors working above the office. We are also concerned about potential fiber migration pathways to the office area below. The fresh air duct for the office HVAC unit has a duct for outside fresh air. The HVAC unit has a filter on the side and it appears that it may draw air from the general facility. We recommend that this be reviewed to ensure all air pathways from the top of the office are eliminated. Overall Risk Factor : 60.
- Incoming Water Pump Room Filtration Room: The area has some occupant exposure and material is damaged. Asbestos content of damaged material is high. There are high air flow rates in this area. Overall Risk Factor = 66.
- Oil Storage Pump Room: This space has a high exposure rating since it is occupied by contractors. It may also be scheduled for demolition in the future.
 Material is significantly damaged. Overall Risk Factor = 84.
- Egress Pathway Adjacent to SNCR: Material is significantly damaged. There is high exposure duration. There is a potential for fiber migration from significantly damaged areas. Overall Risk Factor = 84.

On the 21 Level, there were seven (7) assessment areas. Three (3) of the areas received a risk factor ranking of 60 or greater. They are as follows:



- Level 21 East South Area (column L20): Material is significantly damaged. Exposure ratings are high because material from this level can become airborne when disturbed and will fall to the G-10 level walkway area. Overall Risk Factor = 72.
- Level 21 East Center Area (Column Q20): Exposure ratings are high because material from this level can become airborne when disturbed and will fall to the G-10 level walkway area. Overall Risk Factor = 66.
- Level 21 East North Area (column T20): Exposed material is significantly damaged. There is the potential for fiber migration from air flow from significantly damaged areas. Exposure duration is transient. Exposure ratings are high because material from this level can become airborne when disturbed and will fall to the G-10 level walkway area. Overall Risk Factor = 60.

On the 41 Level, there were six (6) assessment areas. All but one of the areas had a risk factor ranking of 60 or greater. They are as follows:

- Level 41 Southwest (column L17): Material is significantly damaged. There are high flow rates and transient exposure. Hazard Ranking 60.
- Level 41 North Area (column U-19): Material is significantly damaged. There are asbestos-contaminated debris piles in the area. Exposure is transient.

 Overall Risk Factor = 60.
- Level 41 Center Area (column P19): Material is significantly damaged.

 There are high air flow rates. Exposure is transient. Overall Risk Factor = 65.
- Level 41 South Area (Column L-19): Material is significantly damaged. There is the potential for fiber migration and exposure from due to airflow from significantly damaged areas. Exposure is transient. Overall Risk Factor = 65.
- GC/Abatement Storage Area: Material is significantly damaged in adjacent areas. Asbestos was present in dust and debris in and around contractor storage areas. There is exposure duration > 1 hour. Overall Risk Factor = 60.



The material condition and exposure potential gives an accurate risk factor for potential asbestos exposure. We do not recommend air sampling as an assessment tool in most areas since it delivers a onetime (snap shot) result that does not reflect the dynamic risk factors in the area. In addition, there are significant issues with interpreting such air sampling results.

One possible exception is the operations/maintenance office area(s) on G-10 which are directly below areas of damaged ACM. Air samples would yield good data as an indicator of whether or not fiber migration and occupant exposure is possible. If air sampling is conducted, Aires would recommend analysis sampling and analysis protocols by Transmission Electron Microscopy (TEM), since non asbestos fibers would be expected. TEM analysis can accurately distinguish between asbestos and non-asbestos fibers. The other widely recognized air sampling/analysis method, phase contrast microscopy (PCM), cannot distinguish between asbestos and non-asbestos fibers.

PROFESSIONAL CERTIFICATION

Aires Consulting Group, Inc. conducted this study in the interest of **Midwest Generation** to assist in preventing employee illness and in meeting legal obligations. In this respect, we hope the results of this study are useful. This study was not intended to include every health hazard or exposure that may be present in the facility; only those items specifically addressed in the report were evaluated. Results are based on conditions observed during our study. Substantial changes in occupancy levels, ventilation system operation, or facility usage can alter the outcome of an environmental study. If you have any questions concerning this study please let us know.



Aires retains electronic files of all reports, correspondence, and data. We do **not** retain hand written field notes **indefinitely**. The file that contains the hand written field notes will **not** be retained after **June 30**, **2013**. If you would like to retain the field file after this date, please let us know and we will forward the file to you.

Respectfully submitted,

AIRES CONSULTING GROUP, INC.

Jeffrey M. Olson

Environmental Health Consultant

Joseph F. Murphy, C.H.M.M.

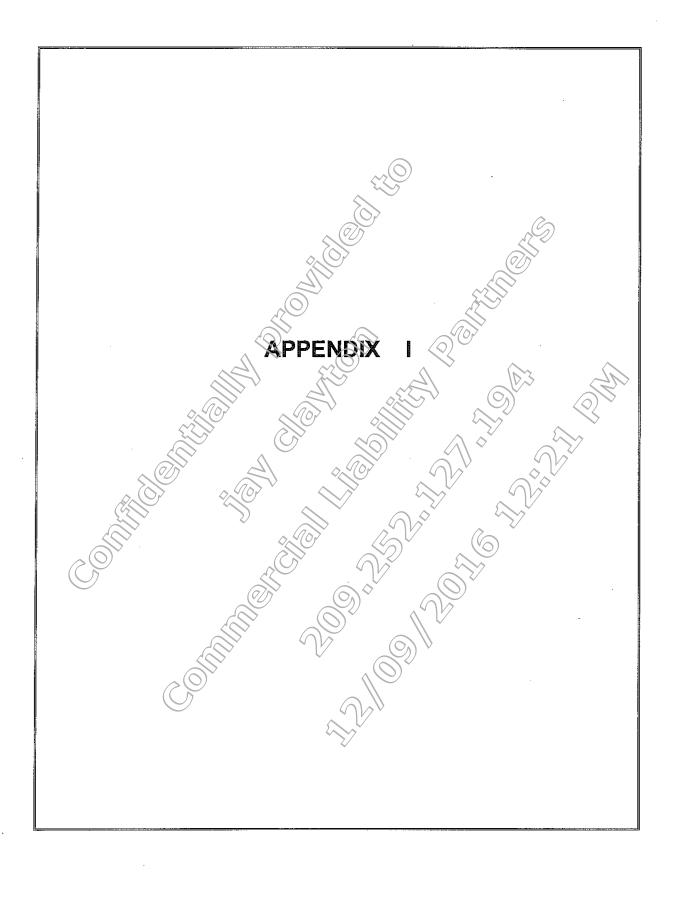
Supervisor - Field Operations and Remediation Services

Geoffrey J. Bacci, M.S., C.I.H.

Director - Operations



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MIDWEST GENERATION - CRAWFORD STATION RETIRED BOLLER AREA ASBESTOS HAZARD ASSESSMENT LEVEL G10 THORUGH LEVEL 41 MARCH 9 THROUGH 15, 2011

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*See Comments and/or Drawing ND = Not Detected

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sment	1: Chrysoile, 2: kmphbole Asbestos %	Q	₩
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	it Fact	Asterial Condition	m
	essmer	Asbestos Type i:Chrysotle, Zi Amplibode % 26052ed2A	₹0 <u>0</u> 0
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	Mate	System P: P(ps, 7; Teok, 8: Boiler, M: Míse.	a.
		Colimn Reference)21 to K17
		Floor	610
		Exposure Areas	Corridar J15 to J22

*See Comments and/or Drawing ND = Not Detected

(A)			
		Comments	Possible LBP on wall plaster
		Picture	
RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT LEVEL G10 THORUGH LEVEL 41 MARCH 9 THROUGH 15, 2011		Exposure Duration Exposure June State Complete Exposure June State Complete Exposure June State State Exposure June State Exposure	
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	Mate	ystems Pipe, T. Tank, B: Boller, IN: Misc.	Σ Σ
		eznerence	<u>5</u>
	1	1001	± 075
		Exposure Areas	Electrical Room

MIDWEST GENERATION - CRAWFORD STATION RETIRED POLICE AREA ASBESTOS HAZARD ASSESSMENT

LEVEL G10 THORUGH LEVEL 41	MARCH OTHROLIGH 15 2011	

The same of the sa		Comments	Contractors working above office at south end of construction area. North Building Entrance 2500-3000 fpm North Office Entrance 50-100 fpm West Office Entrance 30 fpm South Office Entrance 30 fpm
TEVEL G10 THORUGH LEVEL 41		Combined Risk Factor	
LEVEL GIO THORUGH LEVEL 41 MARCH 9 THROUGH 15, 2011	Exposure Assessment Factors	FIDE Migration III Made the more described and the more which the more more more made in the more more more more more more more mor	
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E THC OF THE COLUMN TH	Quantitative Air Flow	mqt wolf tiA	
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		nai Diffueion. 2: 526 fm. 52,5200 fm.	7
	ctors	Material Condition 1: Good, 2: Damaged, 3: Significação Dequisção	en .
	ent Fa	% 205e3d2A WOSKIE JAGE-2004, BL-2004	
	sessm	Asbestos Type ?: Chysosile, 2: Amphibole	2
	Material Assessment Factors	Sample 1D Mumber(s)	MC-7, MC-8, MC-10, MC-10, MC-11 and MC-12
	Mate	Systems Prippe, Te Tank, 8: Boller, M: Mise.	_
		ទวตទາទៅទក្ក ពភាពស្រុ	523
		1001	610
		Exposure Areas	Operations/Maintenance Office and Trailer Area 017 to W17 018 to W18

MIDWEST GENERATION - CRAWFORD STATION RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT LEVEL GIJJ THORUGH LEVEL 41 MASCH 9 THROUGH 15, 2011

ANES				tion crews.
		ents		This area was also being used by construction crews.
		Comments		pelng use
	j			ea was also
				This sur
		Picture		
KEIIKEL BUILKA AKEA ASBESI OS PALAKAD ASSESSMENI LEVEL GIS THORUGH LEVEL 41 MARCK 9 THROUGH 15, 2011		Consolned Risk Factor		23
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ž		. Negative she flow, 2:>50 gam, 2:>50 gam, 2:>50 gam, 2:>20 gam, 2:>20 gam, 2:>20 gam, 2:>20 gam, 2:20 gam		<u>-</u>
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	Facto	Asterial Condition		· m
	E ent	:: Chrysotile, 2: Amphibole As Destos %		
	Material Assessment Factors	Sample ID Number(s) Asbestos Type		MC-14 and MC-15
	Materiz	yetem ; pîpe, 1: Tant, 6: Boller, M: Misc.		Σ ° Σ
•	_	esierence metavi	(2)	K17
		loor	630	210
		Exposure Areas	Maintenance Shop K15 to K17 W15 to W17	Former Ash Deposit Area K17 to N17 K18 to N18

*See Comments and/or Drawing ND = Not Detected

			ction contractor	y reasons. tic Plant Services.
:		Comments	This area was being used by construction contractor as Welding Fab Shop.	This area was not surveyed for safety reasons. Previously decontaminated by Atlantic Plant Services.
		Picture		
		Sotosal AsiA banidmo)	54	o o
VEL 41 , 2011	Exposure Assessment Factors	noise the Control of	4 000	
UGH LI UGH 1	2 A -	Ap, Down, M. W. Wiger et al. W.) >
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LEVEL G10 THORUGH LEVEL 41 MARCH 9 THROUGH 15, 2011	Quanti	willouth, Wet ilentreast, NWs Honthwest, St. Seast, Wilwest St. Scalinghest, St. Sast, Wilwest The World West T	West 50	West
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		noisuifii TiA mai Coss : 5, mai Uče : 12, metailive Atr How. 2: 200 form	8	
	ctors	Material Condition 1: Good, 2: Damaged, 3: Significant, "Damaged	0,1	
	ent Fa	% 2058-beh. %05<.e ,%05-2 is ,%2-2 i.)	2	
	Sessm	Asbestos Type 1:Chrysolle, 2: Amphibole	2	
	Material Assessment Factors	(s) Namber (s)	MC-16 and MC-17	
	Mate	Pystem System		
		esnerence	K18	
		10017	G10	610
		Expusture Areas	Former Ash Deposit Area K18 to N18 K19 to N19	SNCR Construction Area O18 to O19 W18 to W19
	-			

7 of 21

MIDWEST GENERATION - CRAWFORD STATION RETIRES BOLLER AREA ASBESTOS HAZARD ASSESSMENT LEVEL G10 THORUGH LEVEL 41 MARCH 9 THROUGH 15, 2011

	Comments	Trace amount of Chrysotile was found in Sample Number MC-20.	This space was occupied by mechanical contractor for new piping install and may be scheduled for demo by Graycor as part of SNCR project.
	Picture		84
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Quantitative Exposure Air Flow Factors			m
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Quantitative Air Flow	mqt wolf 1/6		05
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	Friability 0.5. Non-Habig 15gbbi		, .
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ctors	Material Condition 1:600d, 2: Demaged, 5: 51gm/financh/Lonnaged	, m	en en
ent Fa	% sotseden worker, worser, were i.	۰	ч
sessm	Asbestos Type		N
Material Assessment Factors	(s) Number(s)	MC-18 and MC-19 MC-20	MC-21
Mate	System F. Pripe, T.: Tank, B. Sotler, M: Misc.		0.
	eonarafañ nmuluo	23	P18
	Tool	010	610
	Exposure Areas	Former Ash Deposit Area SNR Construction Area	Oil Storage/Pump Room O18 to 019 P18 to P19

8 of 21

MIDWEST GENERATION - CRAWFORD STATION RETIRED ECHER AREA ASBESTOS HAZARD ASSESSMENT LEVEL G10 THORUGH LEVEL 41

		Mate	Material Assessment Factors	essmeni	t Factor			-	Quantitative Exposure Assessment Alt Flow			Exposure Assessment Pactors								
Exposure Arras	Pioor Pionimi Reference	System Systep, 1: Tank, 8: Boller, Nt: Miss.	(s)radmuM Ol alqms2	aqYT sozeadeA	1.1.3-M, 21-54M, 21-20M Material Condition 1.5 cool, 2 to Images, 3: Significantly lightnessed	moteuffig TiA mateures in malage 15, wolf the subteach .1	Villabina 12: Non-Fidelin 2: Adelin	Physical Distupction 1: No posemies, 2: subsh thus, 2: Stenificant Risk 1: No posemies, 2: subsh thus, 2: Stenificant Risk 1: 20: 20: 20: 20: 20: 20: 20: 20: 20: 20	And the man and the second of	Vertical Component	All, Down, M. Market Ma	Exposure Duration In to Sposure (27 Transler, 1974) First translers, 472 No ecupled	Contibined Risk Factor		Picture			Comments	ents	
Former Ash Pit Area K19 to K20 M19 to M20		5	E, 4; YI — A		m		ED .			25-50 Up			A COLOR B							

*See Comments and/or Drawing ND = Not Detected

	Material Asse	Figure 1 A A A Figure 1 A A A Figure 1 A A A A A A A A A A A A A A A A A A	MC-30, MC-31, MC-31, MC-31, MC-33, MC-33, MC-34, MC-35, MC-36, MC
	Material Assessment Factors	andstanna is, ablocations and	, m
MIDWIEST GENERATION - CRAWFORD STATION RETIRED ROVER AREA ASBESTOS HAZARD ASSESSMENT LEVEL GIO THORUGH LEVEL 41 MARCH 9 THROUGH 15, 2011	3	Frishliky Darwon-stigket, glaphe Physical Distuption Tho physical Distuption fick The Stigket set, 25 significant fick Discricy	
MIDWEST GENERATION - CRAWFORD STATION IRED FOLER AREA ASBESTOS HAZARD ASSESSM LEYEL G10 THORUGH LEVEL 41 MARCH 9 THROUGH 15, 2011	Quantitative Air Flow	we describe the theoretic works to through a company of a	West & Zoo- Down
CRAWFORE TOS HAZARE UGH LEVEL 1 JGH 15, 201	Exposure Assessment Factors	A v. n.mod. up. A.M. see A.M.	
STATION S ASSESSMENT 11	ıt	Exposure a bisk Factor	84
		Picture	
AMES .		Comments	Trace amount of Chrysotlle was found in Sample Number MC-36.

MIDWEST GENERATION - CRAWFORD STATION
RETIRED GOILER AREA ASBESTOS HAZARD ASSESSMENT
VEXEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011

Participal Material Accounts From the Participal Accounts From the Partici		. """	
MACCO NO. 12 Activity of the control		Comments	Trace amount of Chrysottle was found in Sample Number MC-38.
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Material Assessment Factor Column Reference Co	·	is: (1 in ecubled, 4:>1 in occupled	
Material Assessment Reference Total and McC42 MC43 MC44 MC440 MC440	Exposure Assessmen Factors	As we'll work the state begames the find with most find a size. Exposure Dutation	
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Material Distribution M.C. 42 M.C. 42 M.C. 42 M.C. 42 M.C. 42 M.C. 43 M.C. 43 M.C. 43 M.C. 44 M.C. 45 M.C. 46 M.C. 46 M.C. 47 M.C. 48 M.C. 48			
Material Distribution M.C. 42 M.C. 42 M.C. 42 M.C. 42 M.C. 42 M.C. 43 M.C. 43 M.C. 43 M.C. 44 M.C. 45 M.C. 46 M.C. 46 M.C. 47 M.C. 48 M.C. 48	Air Air	N. Woord, NEI hortheast, W.W. Worthwest, St. Zouth Et Scuetheast, SW1. Southwest, Et Bast, W1. Woot	Court & 2
Material Assessment February MC-40,		A/10	
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Floor Floor 17 7	nt Fac	1,1-5%, 2:5-20%, 3:>20%	m
Floor Floor 17 7	essme	T:CptAsonjle+3: wmbpipoje	
Floor Floor 17 7	iai Ass		(C-42)
Floor Floor 17 7	Mater		∑. 5 5 5 2 5 5
			P14 to P17
Exposure Areas Level 21 West - Center Area 014 to 017 R14 to R17		Floor	
		Exposure Areas	Level 21 West - Center Area 014 to 017 R14 to R17

MIDWEST GENERATION - CRAWFORD STATION
RETIRED EQUIES AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH OTHROLIGH 15, 2011

		Comments		
	*	Picture		
1, 2011	Exposure Assessment Factors	Complied Risk Factor Exposure, 21 Factor Exposure, 22 Factor Factor of the Factor Fa		1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
MARCH 9 THROUGH 15, 2011	Quantitative Ex	Alt Flow fpm Vertical Component Up, Down, A/A Fiber Migra/inja	DS 00	th 50 Down
		Friability 0.5: Non-steller, 1:19: along Physical Distribition 1: No perpetu 2: steller filte, 5: Squarean filte Direction		1 2 South
	nent Factors	As Destoo % 1.1-54, 2-50%, 31-300% Material Condition 1.1-60, 31 chmated, 31 climiferativi benesed At Diffusion At Diffusion 1. resoure Air flow, 21-50 flow, 31-50 flow	e 0	m m
	Material Assessment Factors	System System It san, It soler, he Misc Sample ID Number(s) Type Type Respector Type Respector Type Respector Type Respector Type Respector Type Respector Type	MC-44	MC45 TPM and 1 MC46
		Floor Column Reference	41	21 T14 to 717
		Exposure Areas	Level 21 West - North Area \$14 to \$17 W14 to W17	Level 21 West - North Area 514 to 517 W14 to W17

*See Comments and/or Drawing ND = Not Detected

			Material Assessment Factors	Assessr	ment Fa	ictors			o -	Quantitative Air Flow	Quantitature Exposure Air Fow Factors	Exposure Assessment Factors	ure nent						
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		53	(0)																
Level 21 East - South Area K20 to K22 N20 to M22	71 120		MC-47, MC-48, MC-49, MC-50 and MC-51	47, 48, 50 d 6 d	en .	m	m m	1/2/	Hand American	- 56 - 400 - 700			Cm.	72					
		•							w						6				

Comments MIDWEST GENERATION - CRAWFORD STATION
RETIRED EQUER AREA ASBESTOS HAZARD ASSESSMENT
LEVEL G10 THORUGH LEVEL 41
MARCH 9 THROUGH 15, 2011 99 noitenuQ sanzoqu AnaitemTix,anesqui eM RohlergiM 19di Mohlergion, 214 (1904) Quantitative Air Flow 500-100 noissan. non ian Ameni roista Dist aption No porevist, 2: sight fist, 3: Sign Villdeir Joshfrank:2 noizuttio vid Noisuts avinesek... 7 Material Assessment Factors m % 20129d2. 1-5%, 2:5-20%, 8:>20% Asbestos Type Chrysoide, 2: Amphibole ~ MC-52, MC-53, MC-54 and MC-55 TPM 8 21 Level 21 East - Center Area 020 to 022 R20 to R22 Exposure Areas

*See Comments and/or Drawing ND ≈ Not Detected

*See Comments and/or Drawing ND = Not Detected

		≥	Material Assessment Factors	Assessn	nent Fac	etors			¥ .	Quantitative	HROU	MARCH 9 THROUGH 15, 2011 Quantitative Exposure Assessment	2011 sure					
			(3)						23		<u> </u>	Ge mark malt n		\wedge				
Exposure Areas	loor Olymp Reference		ystem بهرود ۲۰ تمان ۱۵ هواور ۱۸ تغانی تعبیهاو Di Wymber(s)	Asbestos Type	% 2atesdah ware: "ware: r. we-?	Naterial Condition :Good, 2: Damaged, 3: Significantly, C. magest anicond, 2: Damaged, 3: Significantly, C. magest	Air Diffusion Hearlive Air Row, 2:350 fgm, 2:2200 fgm Tilldeiv	Physical Districtions 3: significant Risk (1995) on the property of the proper	This self of the self in the s	F. Southwart, Sw. Southwest, E. East, W. West	Vertical Component A'M. A'M. My. Down, My.	Fiber Migration, 2. At 100 vicom damaged avea, 3: Ail and steep, 4: Ail and steep, 4	Anotherized Stureages, "American Technicology of Lyne beiterson'n Technicology of Lyne	Consbined Risk Factor	Picture		Comments	
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								<u> </u>				1						
Level 21 East - North Area \$20 to \$22 W20 to W22	720		MC-56, MC-57, TPM MC-58 and MC-59	56, 57, 58 2 59	m	m .	7 7	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	£ 500	506.	·	74		8				
													2)					

MIDWEST GENERATION - CRAWFORD STATION RETIRED BOYLER AREA ASBESTOS HAZARD ASSESSMENT LÉVEL GJO THORUGH LEVEL 41 MARCH 9 THROUGH 15, 2011

	Picture Comments	
Quantitative Assessment Air Flow Factors	Martical Composeent Vertical Composeent Up, Down, M/A Fiber Migration, 21 the Words of a security of	300 Down 3
Material Assessment Factors Au	mayley(in the follow, Mr.	MC-60, MC-61, MC-63, MG-64, MG-64, MG-64, MG-66, MG-66, MG-66, MG-66, MG-66, MG-66
	Floor	. п
	Exposure Areas	Level 41 - Southwest Area 116 to 118 Q16 to Q18

MIDWEST GENERATION - CRAWFORD STATION RETIRED BOILER AREA ASBESTOS HAZARD ASSESSMENT LEVEL GIO THORUGH LEVEL 41

		Comments	·
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MARCH 9 THROUGH 15, 2011	Exposure Assessment Factors	Fiber Migration, 51 of Iday from changed sites, 3: Air Ibentom 70 Exposure Dataction Thousand Targette	
ROUG		Vertical Component	Down
H 6 M	Quantitative Air Flow	mqt wolf tiv	051
MARO	ð	O 16 GEORGIA W. Worth, WE. Wortheast, NWs Northwest, St. Seat, W. West Sci. noutheast, Ew. Southwest, El East, W. West	Winds (
		Physical Disruption 1.1 No potential, 2: Significant filet	
		Mathity Adention:20	
		moizuttid 'iiA mqi (Dr. ८:१, ग्रांची (Dट८ 15, wofi 11A av))sgaiv. I	E
	tors	Material Condition Lebod, 2: Damaged, 3: Significantly Opmaged	m
	int Fa	% 20329d2A	
	essme	9qyT zotzebezecs application at the street of the street o	
	Material Assessment Factors	(2) Number(5)	MC-67, MC-68, MC-69, MC-72 And-73
	Mate	System Pre, 7: Tank, 8: Boller, Mt Mice.	
		ojum Reference	
		100[4
		Exposure Areas	Level 41 - North Area S18 to W18 S22 to W22
	L		

	Comments	
	Picture	
Exposure Assessment Factors	It No high etion, 7: All flow from atmosped area, 3: Alv flow from 50 area Exposure Duraction Exposure 2: Trendene, 3: 21 for despised, 6: 23 for excepted Combined Blsk Factor	
Quantitative Air Flow	Air Flow fpm Vertical Component Up, Down, MA Fiber Migration	Umog Ogi
Quanti Air F	I no posledi), 25 signi Rick, 35 significati, 15 significant Rick Diffection (Significant Rich Bostinesse, Bush Morthwesse, Essent W. West Secondossis, SWI continuent, Essent W. West	7.077
	Air Diffusion Air Diffusion Friability Darmorfense Treftish	
Material Assessment Factors	ASDestos % ASDestos % ASDestos % 1.5-64, 2: 6-104, 4: 1-304, 4: 1-	O m
erial Assess	Sample ID Number(s) aqyT sozeədzĀ	MC-74 and MC-75
Mat	Collimin Reference System Perper ni ten a coller, secular, secular, secular, secular, secular,	
	100	
	Exposure Areas	Level 41 - Center Area R18 to R22 018 to 022

*See Comments and/or Drawing ND = Not Detected

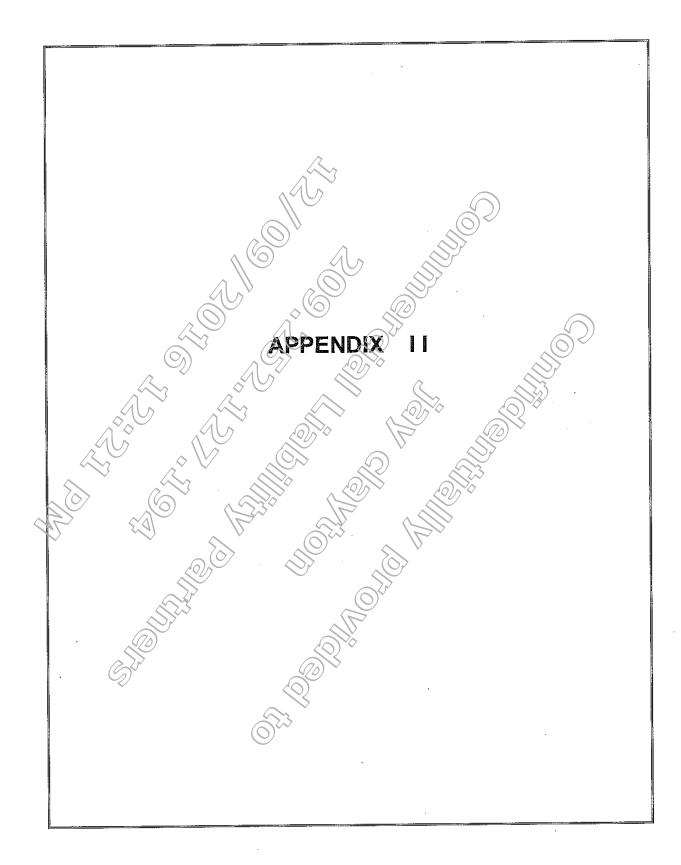
	Comments	
	Picture	
ire nent rs	Constitued Nisk Factor Exposured Nisk Factor	
Exposu Assessin Facto	Dp. Down, N/K Fiber Milgration Listo Migration 2: Alt from from demograd area, 3: Alt flow from the Company of	E UMM
Quantitative Air Flose	(2002) Care of the four formers, S. (2007) Care of the four formers, S. (2007) Care of the four formers of	180 P
	Francischer, zigligber Arbysteal Distriguischen Aber Insperioriale, zistigen Heit, ät steprificant Heit	
stors	noitibno I leivatek tooot in englishe in significanti in tooot in noitintii I leivatee in too in t	m
sessment Fa	adyT zoszadzź w w w w w w w w w w w w w w w w w w w	7
Material As	maysem riske, fi Tank, 81 soliter, Mr.Misc. Sample ID Mumber(s)	Σ 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	Species of the specie	
	Poor	4 14
	Exposure Areas	Level 41 - Center Area R18 to R22 O18 to 022
	Material Assessment Factors Air Flow Assessment Air Flow	Material Materials (1) Interpreted to the continuous of the contin

*See Comments and/or Drawing ND = Not Detected

Air Flow Assessment
Quantitative Reposure Auesment Alr Flow Factors

21 of 21

		Comments	
		Picture	
/EL 41 2011	Exposure Assessment Factors	Exposure Duration Exposure Duration Combined Risk Factor	4
LEVEL 610 THORUGH LEVEL 41 MARCH 9 THROUGH 15, 2011	À	Vertical Compositant Up, Down, w/A Fiber Migration 1. to Nigoral or from the mass as the flow flow flow flow flow flow flow flow	uwo a
MARCH 9	Quantitative Air From	Livo podrajeki, 25. silphi Hohi, 35. silphi Hohi, 35. silphi Hohi, 35. silphi Hohi, 35. silphi Hohi, 36. silphi Hohi DARGETION: Grand-John Hohineste, BW. Horthweste, E. Sechel, Strong-Incare, SW. Southweste, E. Set, W.; West. Strong-Incare, SW. Southwest, E. Set, W.; West. 31. Flow fpm.	tew test
		Alt Diffusion Legative As from, 22-55 from, 22-100 from Friedbirty Assertable affects Physical Distriction	
	Material Assessment Factors	itCinypolite, 22 kmphiloine Agbestos % 1,25%, 12-5704, a-2004 Material Condition Indoor, 21 bampes, 3-5400fcmh Umingd	1 2
	Material Asses	wystem yystem 'rama', ir solver, Mr. Maser. (z) Mumber(s) 94yP sotsodzø	MC-85, MC-86 MC-86
		อวทอาศัยการค	
		Exposure Areas	Level 41 P15 to W15 P18 to W16 GC/Abatement Contractor Storage Area





PLM Analytical Laboratory Report Aires Consulting Group, Inc.

NVLAP #101014

	1						
	Client: A	Client: Midwest Generation	Aires Project #: 11-25185	Fielk	Field Comments:		
			Contact: Joseph Murphy		ı		
•	Address:			Red	Requested TAT: Standard	ard	
ច	ity/State: (City/State: Crawford Station		Date	Date Sampled: 3/9/2011	_	
Lab	Sample	Field Information	Santole Cayer(s)	Regulated Asbestos	Non-asbestos Fibers		% Non-fibrous
Number	Ð	Material Location	% of % of Description of layer sample	of Aype %	Туре	%	
11-558	MC-1	Corrugated Paper Thermal System Insulation; Storage Area- Column Q21	White fibrous papery layers 100	30 Chrysottle 50	Cellutosic	30	20
11-559	MC-2	Hard Pack Fitting TSI Storage Arres Column R21	White/ light brown friable flarous 10 pressed	100 Chrysotile 15	Celtitosic Fibrous glass	15	69
14 660	S C C C	Hard Pack Fitting TSI	White light brown friable fibrous g	92 Chrysotile 25	· Cellulosic Fibrous glass	- ~	29
97	}	Pump Room Area L-21	White coated florous woven	- ON ON	Cellulosic	20	30
11-561	MC-4	Woolfelt TSI Corridor J-20	Tan fibrous papery layers	100 Chrysotile 5	Cellulosic Synthetic	70 5	20
		Cementitous Wall Plaster Skim Coat	White painted white hard compound 9	ON 89	Cellulosic Synthetic	trace	+66
11-562	Š	Electrical Room K-19	Tan rocky cementitous	- ON 7	ND		100
		Cementitous Wall Plaster Skim Coat	White painted white hard compound	- QN 06	Cellulosic Synthetic	trace trace	+66
11-563	φ Δ	Electrical Room K-19	Tan rocky cementitous	- ON	Cellulosic Synthetic	trace trace	+66
11-564	11-564 0311QC-A	Duplicate analysis of 11-559	White/ light brown friable fibrous pressed	100 Chrysottle 15	Cellulosic Fibrous glass	← 5	69

e-mail: lab2@airesconsulting.com

Lab	Sample	Field Information	ıation	S	Sample Layer(s)		Regulated Asbestos	bestos	Non-asbestos Fibers	bers	% Non-fihrous
Number	Ð	Material	Location	Descri	Description of layer	% of sample	Туре	%	Туре	%	STOLEN BY
		L	, tollock	HAF		lab Boforonco: 11-01 M-03	11-D! M-03		Of Boylew	(Aw	Charless
2	Received by: HAP	L	Allalyst.			elelelice.	COLINI-III		CONCEPT.		0
Date	Received: 3/1	1/2011	Analysis Date:	3/15/2011	Report Is:	sue Date:	3/16/2011		QC Title:		Director - Laboratory
Analytica	al Method: EP.	Analytical Method: EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples EPA/600/M4-82-020	e Determination of A	Asbestos in Bull	lk Insulation Samples	EPA/600/M4	1-82-020		Format:	Rev 10-19	0-19
8	MMENTS: All	COMMENTS: All samples received in acceptable condition unless officinise noted.	sceptable condition u	Inless etherwise	e noted.	~					

Test results apply only to samples analyzed.
Negative results in nonfriable organically bound materials may not indicate actual asbestos contents due to the limitations of polarized light microscopy. are actual as bestos, contents, cont ND = Not detected; limit of quantitation is (1.8)



PLM Analytical Laboratory Report Aires Consulting Group, Inc.

NVLAP #101014

	Cliont: M	Client: Midwest Generation	Aires Project #7.41-55485			iold C	Field Commonte.		•
		S	Contact: Joe Murphy			tagino (Dographed TAT: Standard	7.	•
Ö	ity/State: C	City/State: Crawford Station		/2		request	Date Sampled: 3/10/2011	<u> </u>	
Lab	Sample	Field Information	Sample Layer(s)	0)	Regulated Asbestos	stos	Non-asbestos Fibers	Sers	% Mon-fihmus
Number	QI	Material	Description of layer s	% of sample	(Vype	%	Туре	%	STO GILLION BY
11-565	MC-7	Debris on Crane Rail. Above Office Column S-17.	Gray/ writte/ brown fibrous friable particulate	00/	Chrysotile	무 (Cellufosic Fibrous glass Synthetic	5 5 5	78
11-566	MC-8	Debris On Crane Rail. Above Office Column R-17.	White friable floous	160	Chrysotile Crocidolite		ND	, •	80
11-567	MC-9	Debris on top of office structure. Above Office Cotumn Q-17.	Tan woven fibrous	7	ND Chrysottie	, 0,¢	Cellulosic	06	10
11-568	MC-10	Corrugated TSI. East Wall Above Office Q-18.	Brown & black papery Throus layers	1000	Chrysotile	2 2	Cellulosic	09	35
11-569	MC-11	Woolfelt TSI Corrugated Aircell. East Wall Above Office Q-18.	Tain fibrous papery layers	09 04	Chrysotile	15	Cellulosic	07	15
11-570	MC-12	Debris on Rail. South End above Office.	Brown/ white fbrois particulate		Amosite Chrysotile		Cellulosic Fibrous glass	2 5 8	87
11-571	MC-13	Debris on Air Duct. Above Office ST-18	Brown/ gray rocky particulate	100	Chrysotile	0.5	Cellulosic Fibrous glass Synthetic	1 1 trace	+26
11-572	MC-14	Debris & Insulation and Ground. Bay M-N 17-18.	Light gray fibrous friable w/ black rocky	(0)	QN	,	Celiulosic Fibrous glass	trace 0.5	+66
11-573	MC-15	Mag Insulation TSI. Bay K-17, Fell off Pipe.	White friable fibrous	100	Chrysotile	45	QV	ı	55

Tab	Sample	Field Information	Sample Layer(s)		Regulated Asbestos	bestos	Non-asbestos Fibers	bers	% Non-fibrous
Number	QI	Material Location	Description of layer	% of sample	Туре	%	Туре	%	
			Coated ian fibrous woven	80	Ð	1	Cellulosic	75	25
11-574	MC-16	Woolfelf I SI Corrugated Pipe Insulation. Bay E-M-18.	Tan fibrous paper/ layers	92	Chrysotile	5	Cellulasic Synthetic	5	20
11-575	MC-17	Mag Insulation TSI. Bay L-M-18.	Off-white fibrous friable	000	Amosite Chrysotile Crocidolite	0.5 35 trace	Fibrous glass	2	62+
11-576	MC-18	Mag Insulation TSI. Bay Q-20.	Light blue-white fibrous friable	5)	ON	1	Fibrous glass Synthetic	1 7	92
11-577	MC-19	Debris Pile Floor, Bay Q-20 Floor.	Tan rocky cementitous particulate	700	Non Non Non Non Non Non Non Non Non Non	.0	Cellulosic Synthetic	trace trace	+66
11-578	MC-20	Sand/Dirt Debris Floor. Bay S-20 Floor.	Brown rocky particulate	1600	Chrysotile	trace	Cellulosic	trace	+66
11-579	MC-21	TSI Damaged Insulation. Bay Q-(8	Off-white fibrous friable	100	Antosite Chrysotile	10	Fibrous glass	5	78
11-580	MC-22	TSI In Corridor. Corridor K-17.	Gray/ white fibrous friable	100	Chrysotile	90	Cellulosic	ဗ	47
11-581	MC-23	TSI on Hopper Pipe. Ash Pit Room L-18.	Off-white/ rust-colored hard friable particulate	100	9		Ŋ	•	100
11-582	MC-24	TSI on Pipe. Ash Pit Room L-20.5.	Brownf gray flaky fibrous papery	100	Chrysotile		Cellulosic Fibrous glass	- 2	82
11-583	MC-25	Debris on Ground. Ash Pit Room L-19.5.	Gray rocky cementitous	100	ND	•	ND		100
11-584	MC-26	Debris on Ground. Ash Pit Room L-19.	Brown flaky/ rocky/ sandy particulate	(0)	QN	1	Cellulosic	-	66

									י מאכ או י
Tab	S	Field Information	Sample Layer(s)	;	Regulated Asbestos	estos	Non-asbestos Fibers	bers	% Non-fihmus
Number	Q)	Material	Description of layer	% of sample	Type	%	Type	%	
11-585	11-585 0311QC-B	Duplicate analysis of 11-577	Light tan rocky cementitous particulate	100	QN	ı	Cellulosic	0.5	99.5
11-586	11-586 0311QC-C	Duplicate analysis of 1,568	Darktan & black fibrous layers	400	Chrysotile	m	Cellulosic	65	32
				9	Z.			, <u></u>	
Œ	Received by: HAF		Analysic HAF	Lab Reference:	31-PLM-03		QC Review:	\$ 3	Washing
Date	Date Received: 3/11/2011	//2011 Analysis Date	3/22/2011	Report Issue Date:	3/24/2011		QC Title:	Directo	Director - Laboratory
Analytíc	cal Method: EPA	A Interim Method for the Determinat	Analytical Method: EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples EPA/600/M4-82-020	EPA/600/M	-82-0Z0 C	1	Format:	Rev 10-19	-19
Ö	OMMENTS: All s Test	COMMENTS: All samples received in acceptable condition unless otherwise noted. Test results apply only to samples analyzed.	dition unless otherwise noted. yzed.	16		6			
	Neg	jative results in nonfriable organical	Negative results in nonfriable organically bound materials may not indicate actual asbestos contents due to the limitations of polarized light microscopy.	asbestos co	itents due to the	Imitations	of potarized light m	icroscop	· ×
	Q	ND = Not detected: limit of quantitation is 1%	is (%)		> (¹	V	1		
		(5)		,	((,))		2\2		

PLM Analytical Laboratory Report Aires Consulting Group, Inc.

NVLAP #101014

	Client	Client: Midwest Generation - Crawford	Aires Project #: 41-25485		Ē	eld Co	Field Comments:		
Ĉ			Contact: Joe Murphy	\wedge	Ŗ Ö	equest ate San	Requested TAT: Standard Date Sampled: 3/11/2011	ard 11	
	ry/State:	CITY/State: Cilicago, IL Field Information	Sample Laver(s)		Regulated Asbestos		Non-asbestos Fibers	m	% Non 6theorie
Lab Number	oguiros ID	Material Location	<u> </u>	% of sample	Туре		Туре	i	spoidir-lion s
11-631	MC-30	Ground Debris. Level 21 - Column L-14.) soone	0 000	Chrysotile	0.5 ()	Cellulosic Fibrous glass t	5 trace	94+
11-632	MC-31	Pipe Hard-Pack Fitting (HPF) TSI Material. Level 21- Column K-15.	Off-white freshe fishous	700	Chrysotile	98	Fibrous glass	7	63
11-633	MC-32	Pipe HPF TS/Material. Level 21 - Column X-75.	Light tan fibrous friable pressed	100 C	Chryscille	8 /	Synthetic	-	19
11-634	MC-33	Steam Valve HPF TSI. Level 21 - Column K-17.	Off-white frighte Throus	100	Chrysotile	, D9	QN	,	40
11-635	MC-34	Boiler Duct Insulation. Level 21 - Column M-17.	White friable fibrous	100	Chrysotile	20	QN	,	50
11-636	MC-35	Ground Debris. Level 21 - Column N-16 Near Wall Opening	Brown rocky particulate w/ light tan friable (fb/ous	100	Chrysotile		Cellulosic	ro	75
11-637	MC-36	Ground Debris. Level 21 - Column N-14 Near Wall Opening	Brown rocky fibrous particulate	100	Chrysotile	trace	Cellulosic Fibrous glass	1 25	73+
11-638	MC-37	Debris Swept Pile Near Wall Opening. Level 21 - Column P-14 Near Opening.	Dark brown fibrous particulate	100	QN	ā	Cellulosic Synthetic	30	69
11-639	MC-38	Debris Swept Pile Near Wall Opening. Level 21 - Column R-14.	Gray/ brown fibrous rocky particulate	100	Chrysotile	trace	Cellulosic Fibrous glass Synthetic	8 trace trace	91+

Lab	Sample	Field Information	Sample Layer(s)		Regulated Asbestos	bestos	Non-asbestos Fibers	-ibers	% Mon-filtrons
Number	Q	Material Location	Description of layer	% of sample	Type	%	Туре	%	SOO PRICTION OF
11-640	MC-39	Debris Swept Pile In Main Aisleway. Level 21 - Column Q-15.	Brown fibrous rocky particulate	100	Chrysotile	е	Cellulosic Fibrous glass Synthetic	7 trace trace	+68
11-641	MC-40	Boiler System Duot (Asulation. Level 21 - Columb P-16.	Silver coated tan woven fibrous	40	ON S	، ہ	Cellulosic	75	25
11-642	MC-41	Electrical Box Transite Enclosure. Level 21 - Column Q-16.	Gray fibrous hard non-friable		Chrysatile	8 8	Q Q	, u	02
11-643	MC-42	Debris Pile, Level 21 - Column S-16, At East Wall Opening Near Office.	Van/ gray fibrous rocky particulate	100	Chrysotte Crocidolite	æ / (Cellulosic	rc.	986
11-644	MC-43	Debris Swept. Level 21 Column T-16 Opening Near Trailer.	Brown/ white fibrous particulate		Chrysotile		Cellulosic	80	82
11-645	MC-44	Woolfelt Phoe TSI. Level 21 - Column W-16.	Black and tan fibrous papely (ayers	100			Cellulosic	70 5	25
11-646	MC-45	Pipe Drain Line Hard Pack Fitting Thermal System Insulation. Level 21 - Column V-15.	Black cogled an fibrous woven Light tan frable fibrous	80	ND Schrysottle	£ 28	Cellulasic ND	- 80	20 25
11-647	MC-46	Debris Swept Pile Around Scaffolding. Level 21 - Column T-14.	Brown fibrous particulate	100	Chiysotile	0.5	Cellulosic Fibrous glass	55 trace	44+
11-648	0322QC-1	Duplicate analysis of 11-638	Brown (forcus, particulate	100	QN .		Cellulosic Fibrous glass Synthetic	25 trace trace	74+
11-649	0322QC-2	Duplicate analysis of 11-646	Black coated tan rithous woven Light tan fibrous friable	15 85	ND Chrysotile	75	Cellulosic	75	25 25
F Dat Analyti	Received by: HA Date Received: 3/11/2011 Ilytical Method: EPA Interi	Received by: HA Analyst: HAF Date Received: 3/11/2011 Analysis Date: 3/23/2011 Analysis Date: 3/23/2011 Analysis Date: 3/23/2011 Analytical Method: EPA Interim Method for the Determination of Asbestos in Bulk Insulation Samples EPA/600/M4-82-020	HAF Lab Reference: 3/23/2011 Report Issue Date: Abestos in Bulk Insulation Samples EPA/600/	Lab Reference: port Issue Date: mples EPA/600/W	11-PLM-03 3/24/2011 4-82-020		QC Review; QC Title: Format:		Charlus Director - Laboratory Rev 10-19
	CTIVERSE	Observation of the second of the second of the second seco	total appropriate and the second		2				

COMMENTS: All samples received in acceptable condition unless otherwise noted.

Test results apply only to samples analyzed.

Negative results in nonfriable organically bound materials may not indicate actual asbestos contents due to the limitations of polarized light microscopy.

ND = Not detected; limit of quantitation is 1%



PLM Arraintical Laboratory Report Aires Consulting Group, Inc.

NVLAP #101014

***************************************				% Non-fibrous		70	65	50	50	74+	70	70	86	69
		Ţ.	oaro 011	ïbers	· %	ŧ		•		2 trace	,	15	5	5
	Field Comments:	ntod TAT. Other	Requested TAT: Standard Date Sampled: 3/14/2011	Non-asbestos Fibers	Туре	ND	DN	S CON	QN	Celtulosic Fibrous glass	DN O	Fibrous glass	Cellulosic Fibrous gíass	Fibrous glass
	Field (9	reque Date S	estos	%	30	35	20	20	3 20	30	10	2	1 25
			/	Regulated Asbestos	CS (Type)	Chrysotile	Chrysotile	Chrysotte	Chrysotile	Amostre Chrysottle	Chrysotile	Amosite Chrysotile	Chrysotile	Amosite
		4	() Z,	P ₂) .	% of sample	0,700	106	001	. 10°	√100	100	100	00)	100
	Aires Project #: 41-25185	Contact: Joe Murphy		Sample Layer(s)	Description of layer	Silver painted gray fibrous hard non-	White friable fully fibrous	Light gray friable fibrous pressed	Off-white friable librous	Dark gray fibrous particulate	White friable fibrous pressed	Light gray/ tan fibrous itable	Gray fibrous friable particulate	Light tan friable fibrous
	Client: Midwest Generation - Crawford		Address: City/State: Chicago, IL	Field Information	Material Location	Transite Electrical Cabinet. Level 21 - Bottom Of Stairs Near L-20.	Pipe TSI Level 21 - Near Column K-20.	Boiler Duot 7:51. Level 21 - Near Column K-20.	Main Steam Pipe TSI. Level 21 - Near Column M-20.	Debris Adjacent South Stair, Level 21 - Near N-21 Mezzanine.	Boiler Duct TSI. Level 21 - Near Column O-21.	Steam Pipe TSI. Level 21 - Near Column N-21.5.	Debris Pile Walkway Along Handrail. Level 21 - Near Column O-21.5.	Main Steam Valve TSI. Level 21 - Near Column R-20.
	Client:	1	Address: ity/State:	Sample	ð	MC-47	MC-48	MC-49	MC-50	MC-51	MC-52	MC-53	MC-54	MC-55
		•	∢ į́5	Lab	Number	11-650	11-651	11-652	11-653	11-654	11-655	11-656	11-657	11-658

/ Report #: PLM-4079	Page 2 of 4
Laboratory Re	

Lab	Sample	Field Information	Sample Layer(s)		Regulated Asbestos	estos	Non-asbestos Fibers	ibers	% Non-fibrous
Number	Q	Material Location	Description of layer s	% of sample	Type	%	Type	%	
11-659	MC-56	Debris Pile On Main Walkway Adjacent Handrail. Level 21 - Near Column S-21.	Gray fibrous friable, particulate	100	Chrysotile	0.5	Cellulosic Fibrous glass	7 trace	92+
11-660	MC-57	Main Steam Valve TSI. Level 21 - Columb 7-20	Pink tan/ white friable fibrous	100	Amosite Chrysotile	10	Fibrous glass	ю	82
11-661	MC-58	Boiler Duct TSI. Level 21 - Near Column V-21.	Tan-fibrous woven White friable fibrous	15	ND Chrysotile	35	Cellulosic Cellulosic	80	20 64
11-662	MC-59	Debris Pile On Stairwell. Level 21 - Near Column T-21.	Dark brown/ black loose fibrous particulate	100	Chrysottle	0,	Cellulosic Fibrous glass		80
11-663	MC-60	Steam Pipe TSI. Level 41-K-18.	Gray/ white florous friable		Chrysotile		QN	,	50
11-664	MC-61	Bolie Duot TSI. Level 41 - Near Column L-17.	Tan fibrous weven Off-white friable fibrous	7 93	Chrysotile	09	Celibrosic	80	20
11-665	MC-62	Boiler Heater Tube Pappection. Level 41 - Near Column M-17,5	Rust colored fibrous friable	9	Amosite Chrysotile	5 5	Fibrous glass	50	63
11-666	MC-63	Boiler Door Cementicious Packing. Level 41 - Near Column N-17.	Light erange rocky cementitous	100	Chrysottle	trace*	QN	1	+66
11-667	MC-64	Floor Debris South Walkway. Level 41 - Near Column L-18.	Brown/black loose particulate	100	Amosite Chrysotile		Cellulosic Fibrous glass	3.0.5	87.5
11-668	MC-65	Debris Pile Adjacent Center Walk. Level 41 - Near Column O-18.	Brown/ black particulate we white fibrous friable churks	100	Chrysotile	25	Cellulosic Ejorous glass Synthetic	5 trace trace	+69
11-669	MC-66	Steam Pipe TSI. Level 41 - Near Column P-17.	Light gray/ tan fibrous friable	<u>8</u>	Chrysotile	35	QN	,	65
11-670	MC-67	Boiler Ins ul ation. Level 41 - Near Column R-19.	Light gray fibrous friable	100	Chrysotile	20	QN		90
11-671	MC-68	Pipe TSI. Level 41 - Near Column S-20.	White fluffy friable fibrous	100	Chrysotile	35	QN	ı	65
						Į.			

48.5

Fibrous glass

0.5

Amosite Chrysotile

100

Gray/ white fibrous friable

Thermal System Insulation. Level 41 - Near Column K-21.

MC-81

11-684

l ab	Samole	Field Information	Sample Layer(s)		Regulated Asbestos	estos	Non-asbestos Fibers	bers	% Non-fibrous
Number	Q)	Material Location	Description of layer	% of sample	Туре	%	Туре	%	
11-672	MC-69	Debris Pile. Level 41 - Debris Pile Near S-21.	Dark brown/ black fibrous particulate	100	Chrysotile	10	Cellulosic Fibrous glass	25 15	50
11-673	MC-70	Boller Pipe (osulation. Level 41 - Near Column U-19.	Light gray/ white fibrous friable	700	Amosite Chrysotile	7	Cellulosic Fibrous,glass	15	74
11-674	MC-71	Debris Pile On Floor. Level 41 - Near Column V-18.	Brown/ black (brous particulate	1000	Chrysotile	0.5	Cellulosic Fibrous glass Synthetic	15 trace trace	84+
11-675	MC-72	Boiler Insulation. Level 41 - Near Column V-21.	Gray/white fibrous friable	100	Amosite Chrysotile	8 5	QN	D	87
11-676	MC-73	Boller Duct Insulation. Level 41 - Near Column V-21.	Gray/ tan/white frable fibrous		Chrysotile		Fibrous glass	trace	. 64+
11-677	MC-74	Debris Pile Adjacent Walkway. Level 41 - Near-Column O-18.	Dark Brown fibrous debris/ particulate	100	5		Cellulosic Fibraus glass Other fibraus	20 trace 4	85+
11-678	MC-75	Mineral Wool Boiler insulation Level 41 - Near Column P-18	Off-white fluffy fibrous	<u> </u>	ON G	16	Fibrous glass	06	10
11-679	MC-76	Boller Pipe Insulation. Level 41 - Near Column O-19.	Light tan friable fibrous	100	Chrysotile	25	Fibrous glass	30	45
11-680	MC-77	Ground Debris. Level 41 - Near Column N-21.	Gray/ olack fibrous particulate	100	Amosite Chrysotile	9.5	Cellulosic Fibrous glass	- 1	81.5
11-681	MC-78	Boiler Hatch Gasket Material. Level 41 - Near Column N-21.	Tan fibrous clumps	100	Chrysotile	85	Q.	i	15
11-682	MC-79	Boiler Duct Insulation. Level 41 - Near Column O-21.	Black coated tan/ white friable fibrous	<u>8</u>	Chrysotile	30	Fibrous glass	35	35
11-683	MC-80	Boiler Pipe Insulation. Level 41 - Near Column J-19.	White fluffy friable fibrous	001	Amosite	15	QN		85

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e-mail: lab2@airesconsulting.com

Lab	Sample	Field Information	Sample Layer(s)		Regulated Asbestos	bestos	Non-asbestos Fibers	bers	% Non-fibrous
Number	QI	Material Location	Description of layer	% of sample	Type	%	Туре	%	
11-685	MC-82	Damaged TSI. Level 41 - Near Column J-22.	Black & white fluffy florous friable	100	Amosite Crocidolite	15	ND		80
11-686	MC-83	Floor Debris South Walkway. Level 41 - Near Exit Tunnel Column J-16.5.	Black brown fibrous particulate	100	ND	,	Cellulosic Fibrous glass Synthetic	50 1 trace	48+
11-687	11-687 0322QC-A	Duplicate analysis of 11-670	Gray/ white tibrous friable	1000	Chrysotile	50	ΩN		20
11-688	11-688 0322QC-B	Duplicate analysis of 11-660	Gray/ tan/ white friable ibrous	100	Amosite Chrysotile	12	Fibrous glass	-	85
11-689	11-689 0322QC-C	Dublicate analysis of 11-657	Gray fibrous particulate	100	Chrysatile		Cellulosic Fibrous glass	10 5	82
11-690	11-690 0322Q.C-D	Duplicate analysis of 11-682	Black coated tan/ white friable florous	100	Chrysottle	30	Fibrous glass	15	99
~	Received by: HAF	: HAF	: HAF	erence:	11-PLM-03	1	QC Review:	3	Barlug
Dat	Date Received: 3/15/2011	: 3/15/2011 Analysis Date:	3/24/2011 Report Issue Date:	le Date.	3/24/2011		QC Title:	Direct	Director - Laboratory
Analyti	cal Method:	Analytical Method: EPA Interim Method for the Determination of Aspestos in Bulk Insulation Samples EPA/600/M4-82-020	Aspestos in Bulk Insulation Samples EP	^A/600/M²	4-82-020		Format	Rev 10-19	0-19

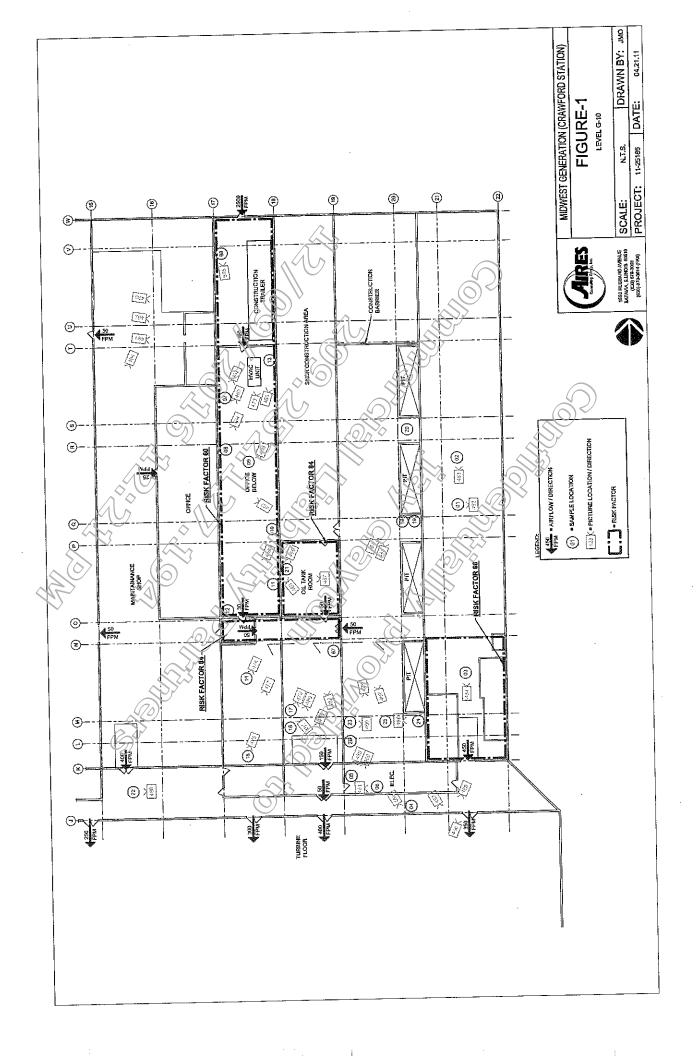
COMMENTS: All samples received in acceptable condition unless otherwise noted.

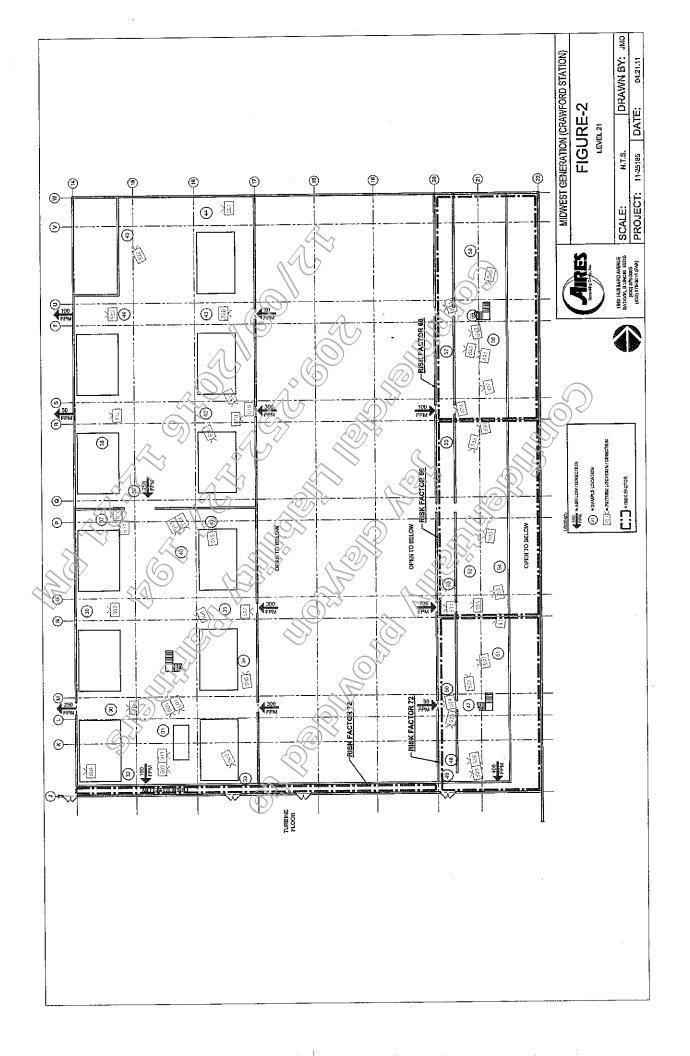
Negative results in nonfriable organically bound materials may not indicate actual asbestos contents due to the limitations of polarized light microscopy.

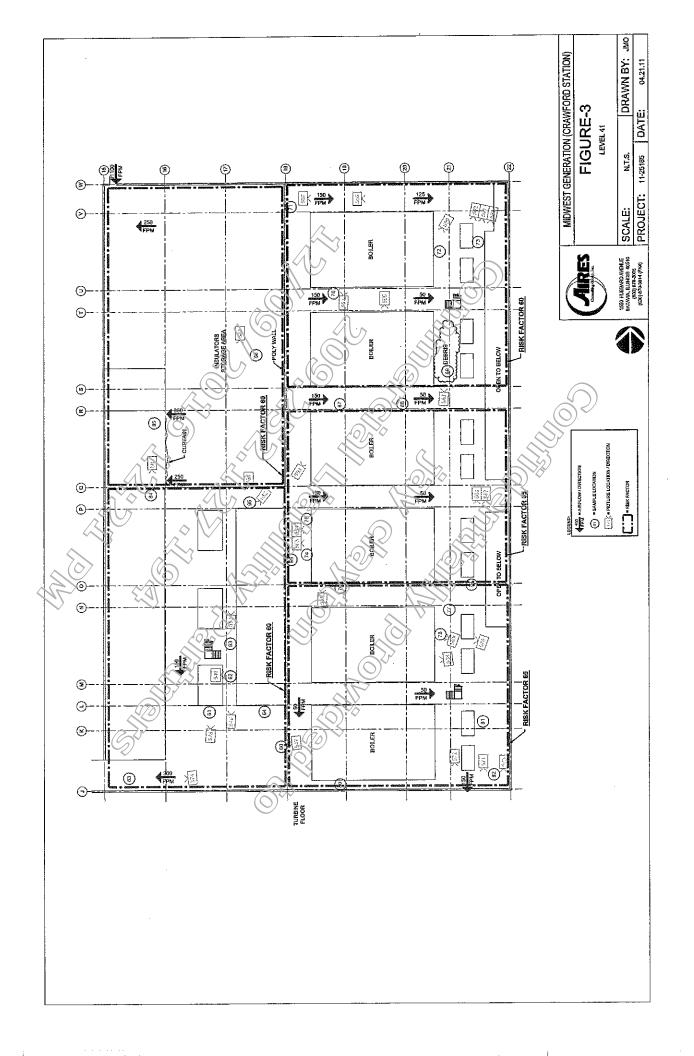
ND = Not detected; limit of quantitation is 1%

*11-666: Chrysotile present only on outer portion of sample.

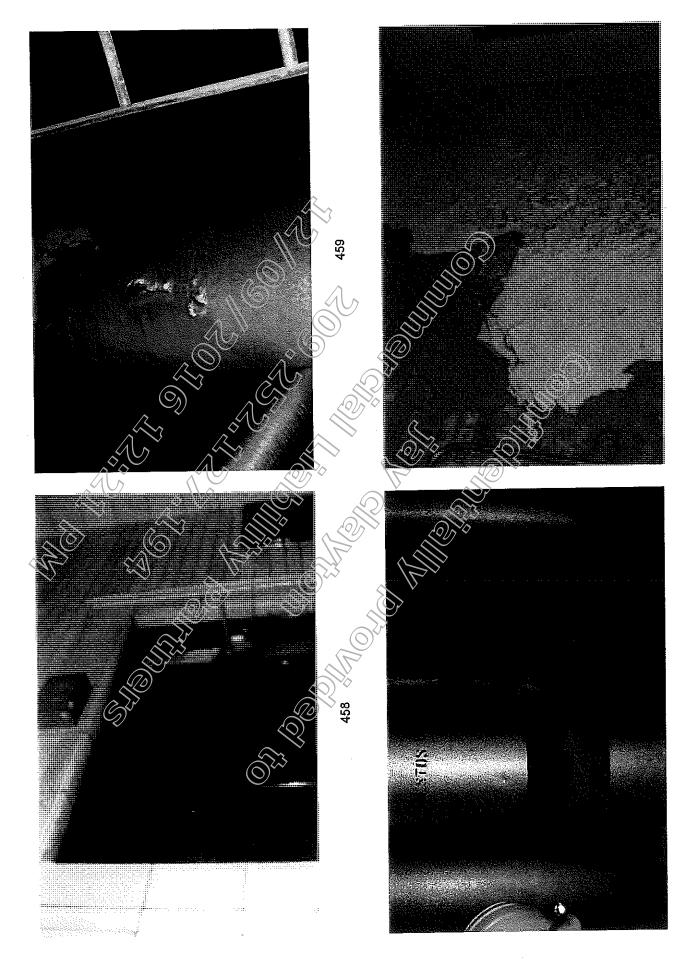
APPENDIX III

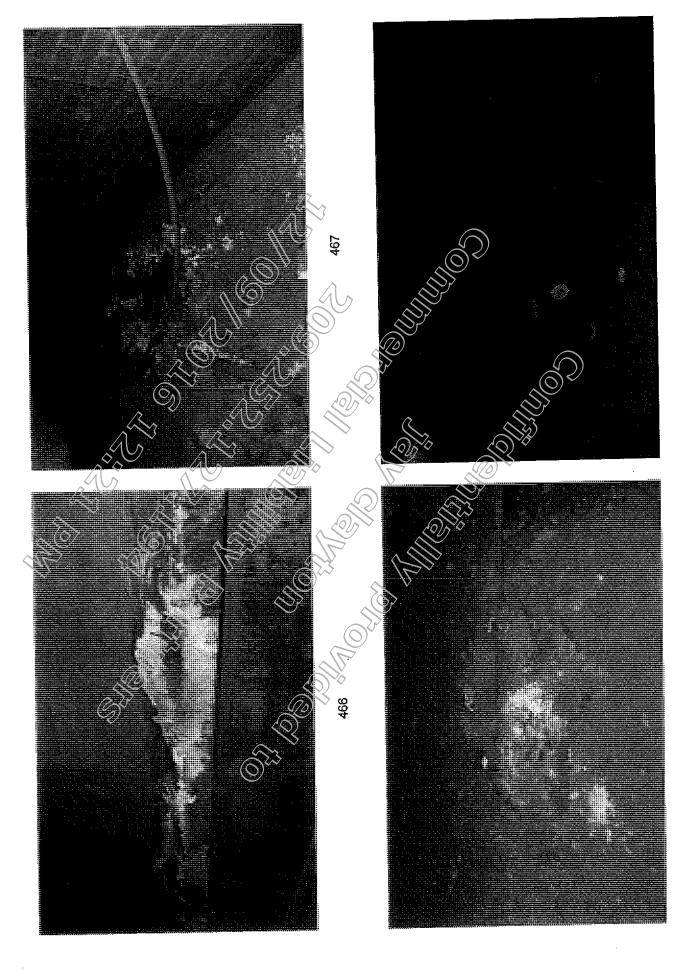




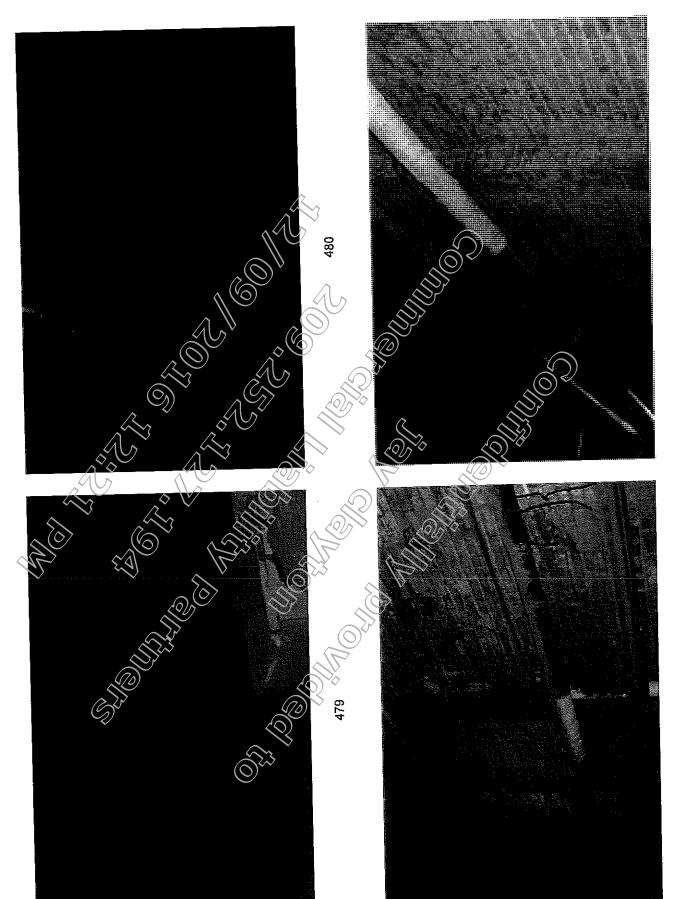


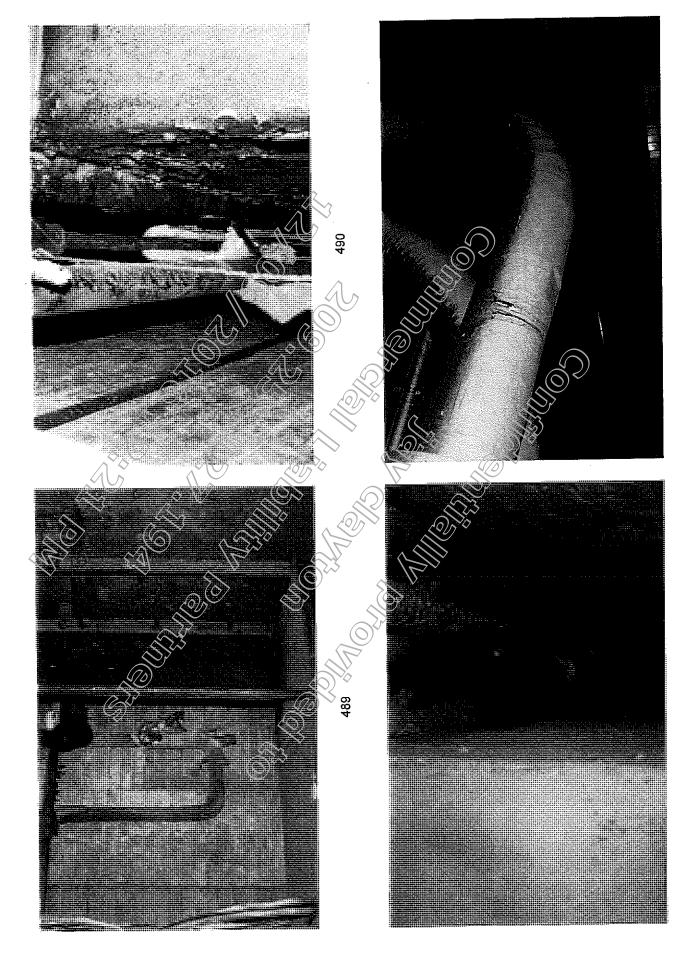
APPENDIX I V

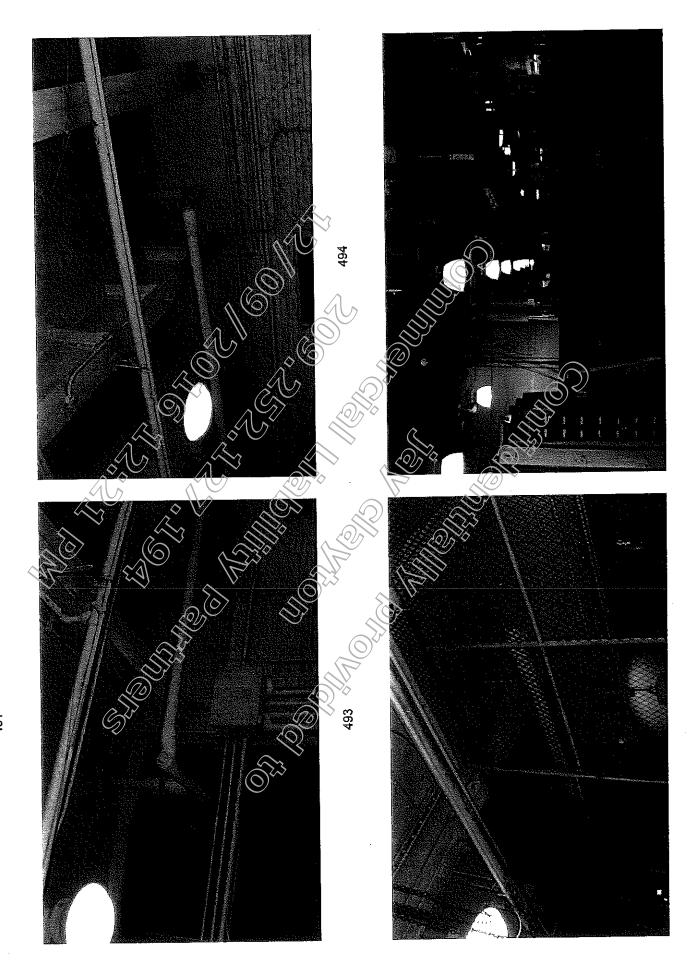


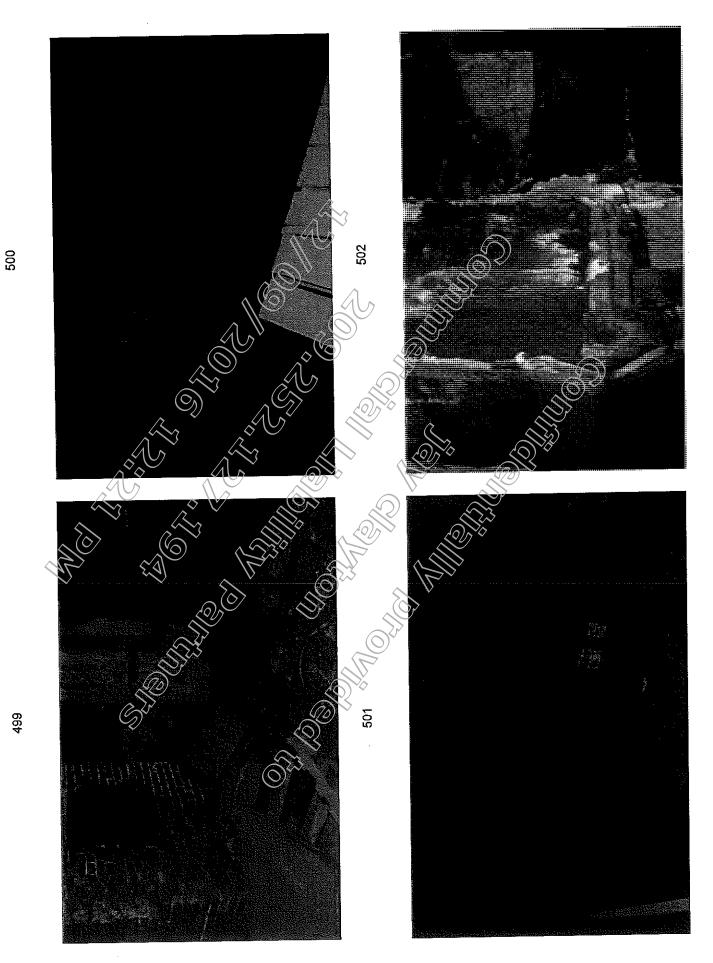


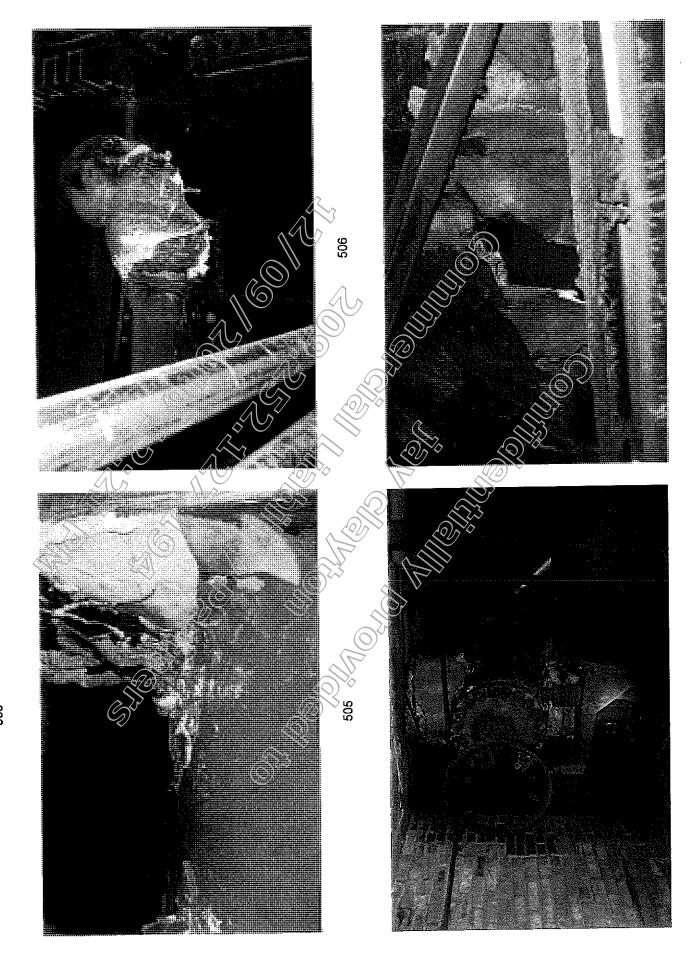


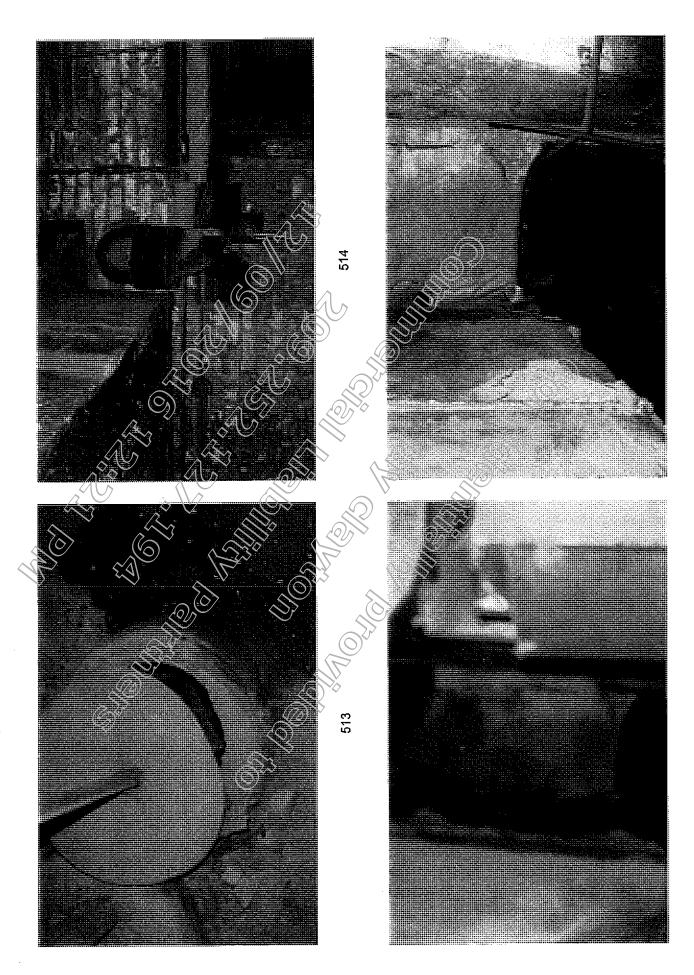


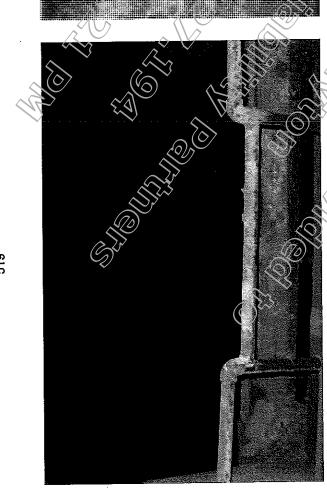






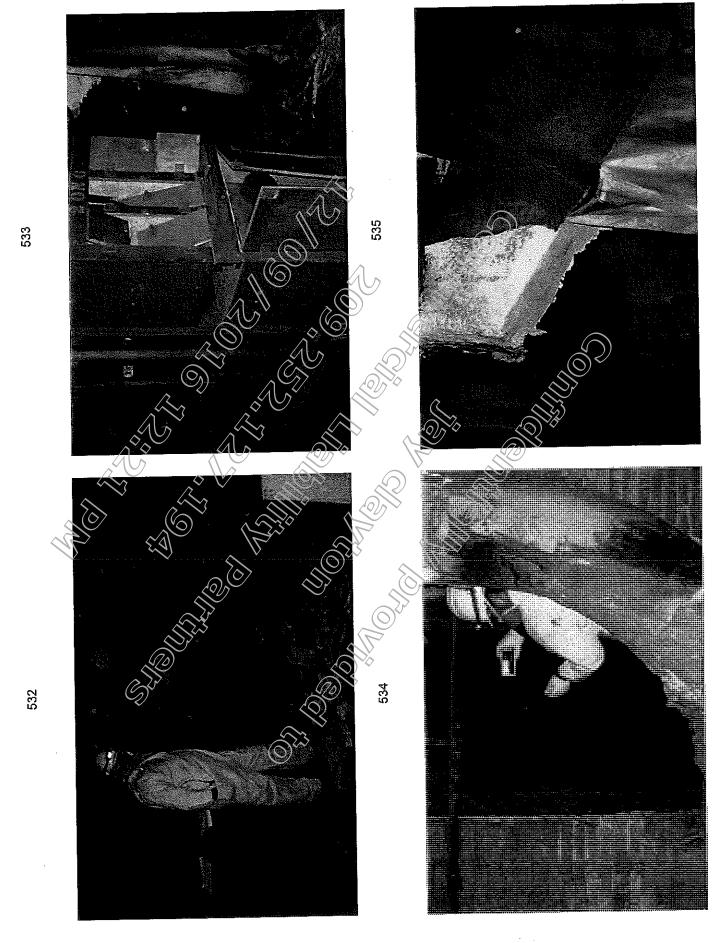




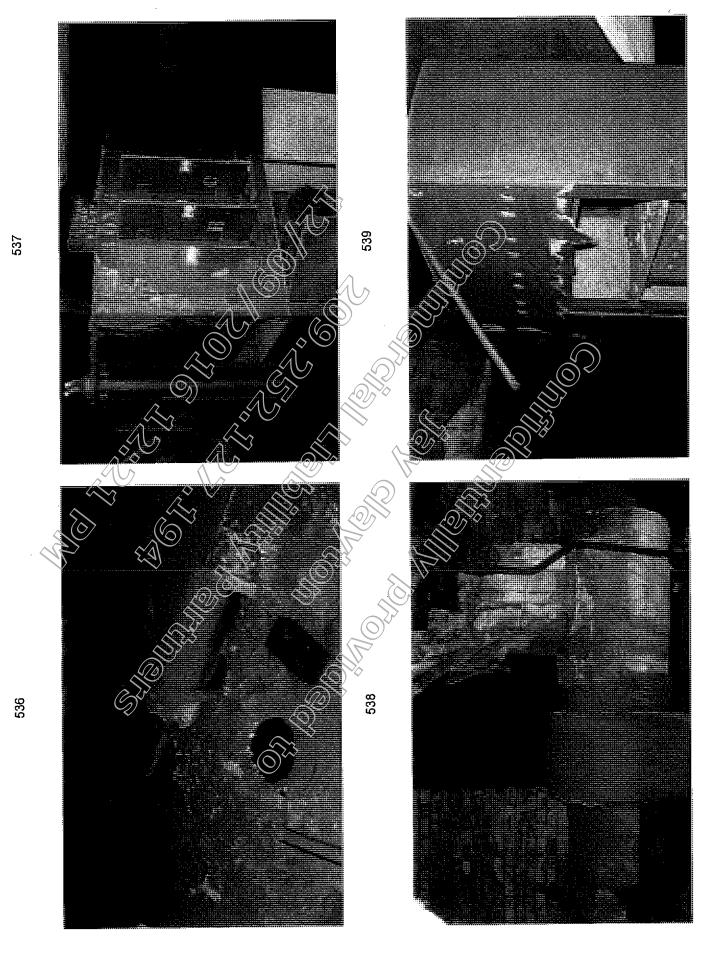


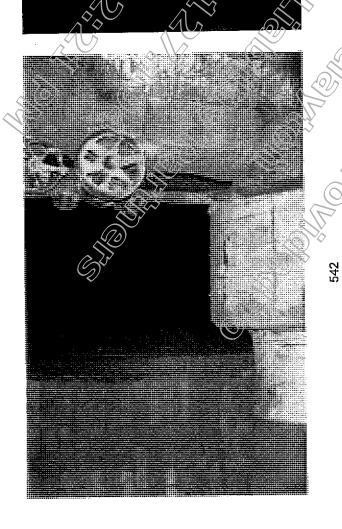


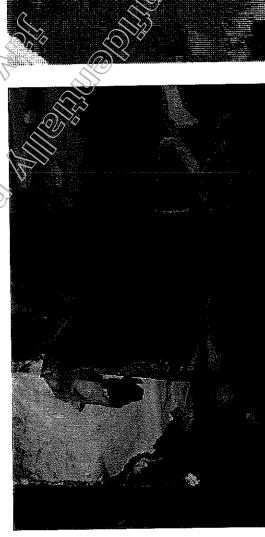


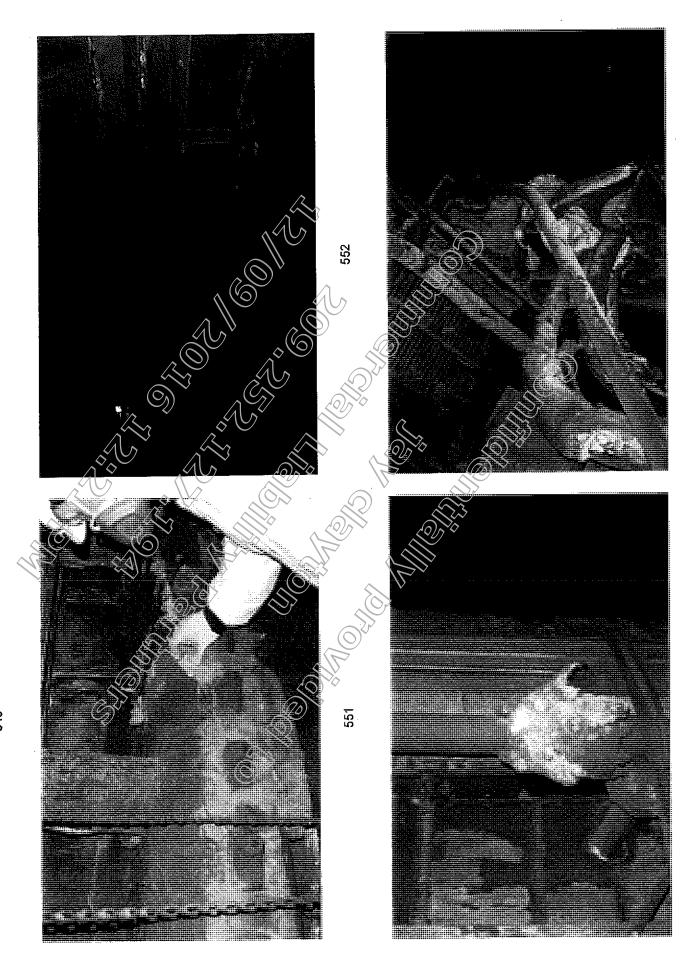


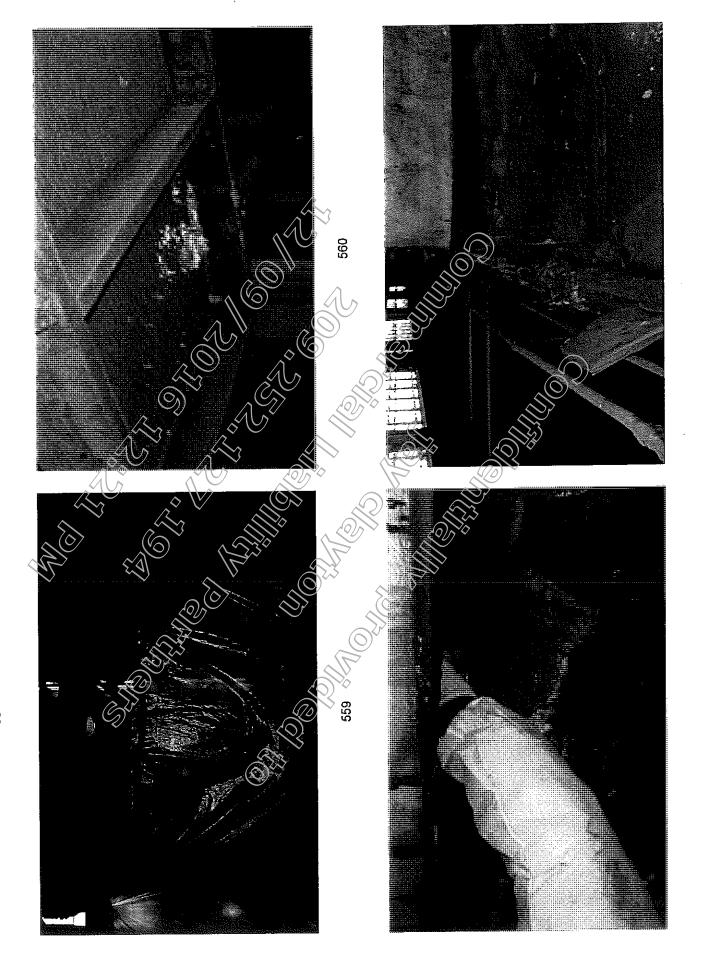


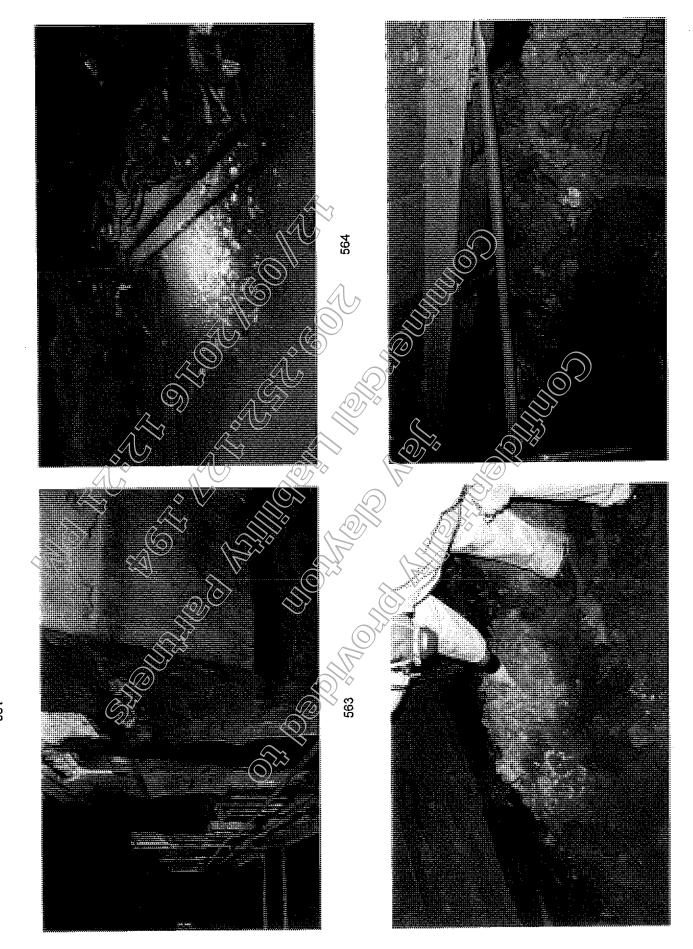


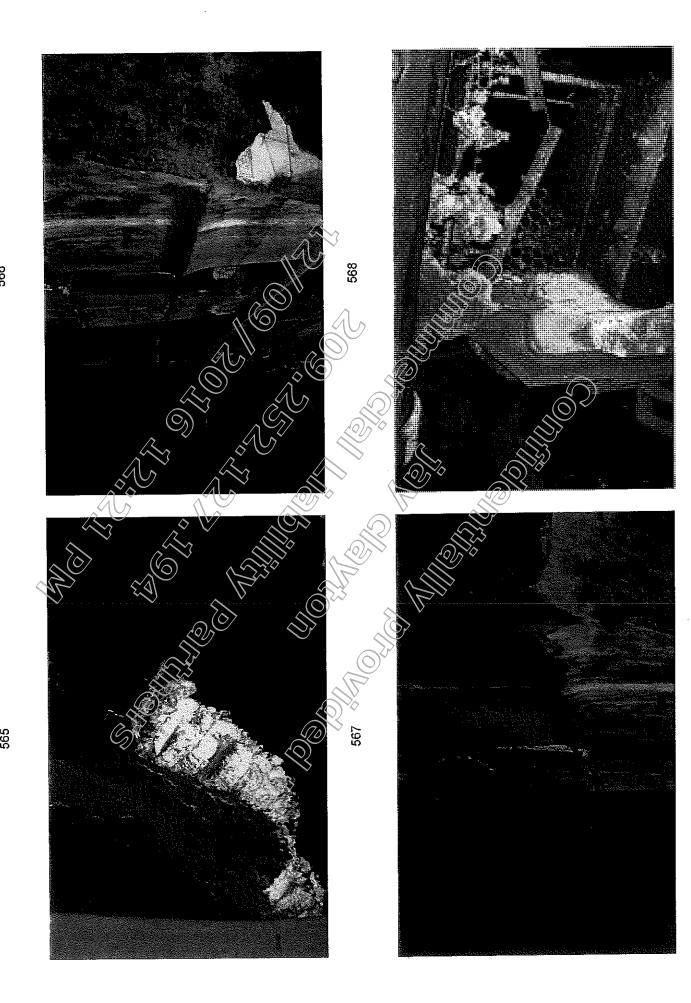


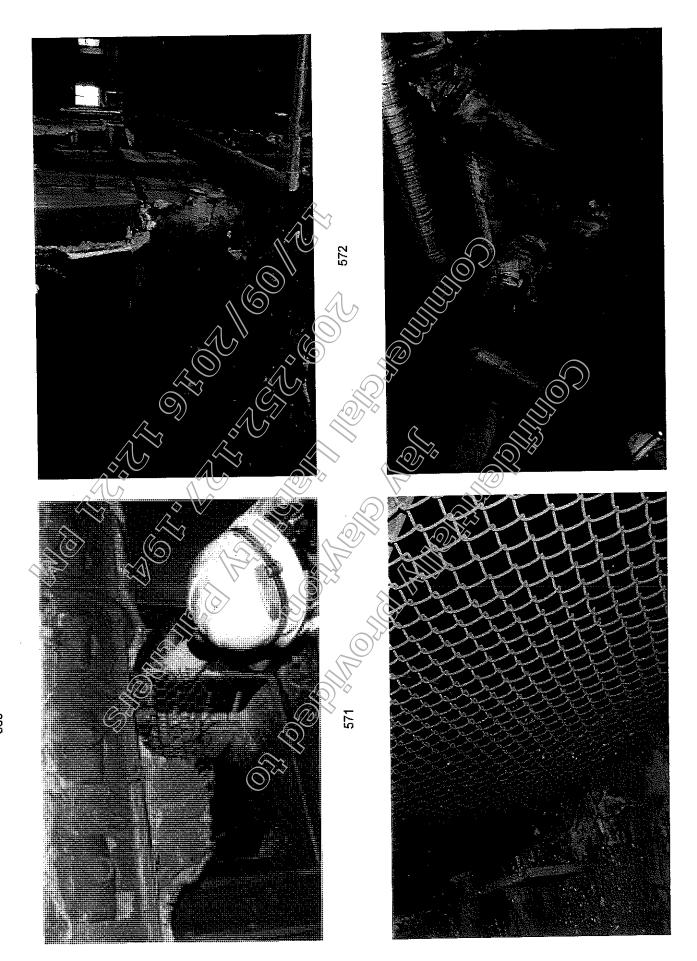


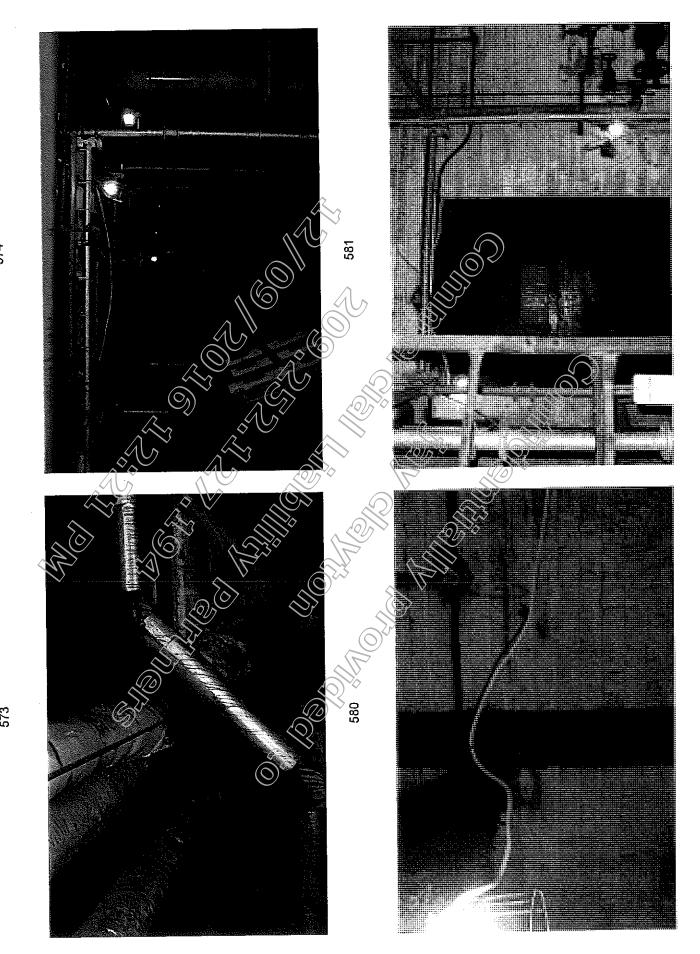






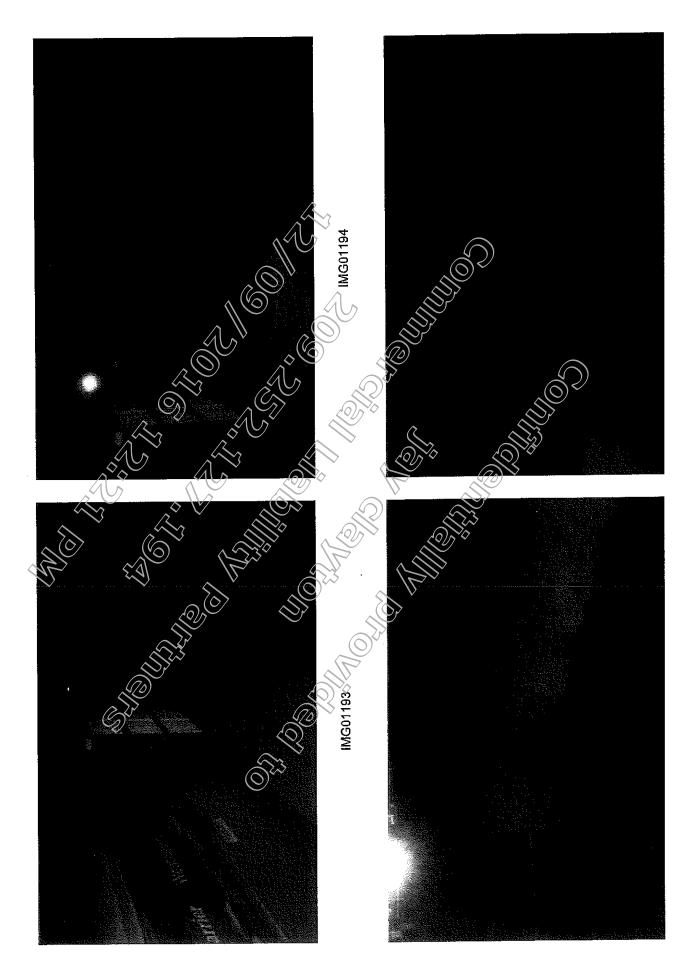












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